# LONG ISLAND WATER RESOURCES BULLETIN 12

# HYDROGEOLOGY OF THE TOWN OF NORTH HEMPSTEAD, NASSAU COUNTY, LONG ISLAND, NEW YORK

By Chabot Kilburn

U.S. Department of the Interior Geological Survey

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# NASSAU COUNTY

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# **CONVERSION FACTORS AND ABBREVIATIONS**

Multiply U.S. Customary unit	<u>By</u>	To obtain Metric equivalent
	Length	
<pre>inch (in) foot (ft) mile (mi)</pre>	2.54 0.3048 1.609	centimeter (cm) meter (m) kilometer (km)
	Area	
square foot (ft <sup>2</sup> ) square mile (mi <sup>2</sup> )	0.0929 2.590	square meter (m <sup>2</sup> ) square kilometer (km <sup>2</sup> )
Specif.	ic Combination	ns
<pre>gallons per minute (gal/min) gallons per minute per foot   [(gal/min)/ft]</pre>	0.06309 0.207	liters per second (L/s) liters per second per meter [(L/s)/m]

	©

# HYDROGEOLOGY OF THE TOWN OF NORTH HEMPSTEAD, NASSAU COUNTY, LONG ISLAND, NEW YORK

Ву

Chabot Kilburn

#### ABSTRACT

The ground-water reservoir underlying the Town of North Hempstead is composed of unconsolidated glacial deposits of Pleistocene age and marine and terrestrial coastal-plain deposits of Late Cretaceous age; it is underlain by bedrock of Lower Paleozoic and(or) Precambrian age. The bedrock surface is the base of the ground-water reservoir.

The Cretaceous deposits beneath most of the Town of North Hempstead, except in the northern parts of Great Neck and Manhasset Neck, consist of three hydrogeologic units (not necessarily correlative with rock stratigraphic units). These are, from oldest to youngest, the Lloyd aquifer and Raritan clay, both of the Raritan Formation; and the Magothy aquifer, which belongs to the Magothy Formation-Matawan Group, undifferentiated. The low permeability of the Raritan clay generally causes the water in the underlying Lloyd aquifer to be confined and retards but does not prevent the movement of water between the two aquifers. These deposits are overlain by glacial deposits of late Pleistocene age, which form the upper glacial aquifer.

The Cretaceous deposits in the northern parts of Great Neck and Manhasset Neck have been deeply eroded, ice shoved, and removed locally. In these areas, Pleistocene deposits rest upon the erosional remnants of the Cretaceous deposits or on bedrock. The Pleistocene and Holocene(?) deposits, together with any remaining Cretaceous deposits in the northern parts of the Necks, have been divided into two distinct hydrogeologic units, herein named the Port Washington aquifer and the Port Washington confining unit.

The Port Washington aquifer overlies bedrock and is in turn overlain by the Port Washington confining unit. The confining unit confines water in the Port Washington aquifer but does not retard movement of water between the overlying upper glacial aquifer and the Port Washington aquifer.

Glacial deposits of late Pleistocene age and local deposits of Holocene age form the upper glacial aquifer. These undifferentiated deposits overlie the older deposits and abut them locally in buried valleys. The upper surface of the glacial deposits form the present land surface.

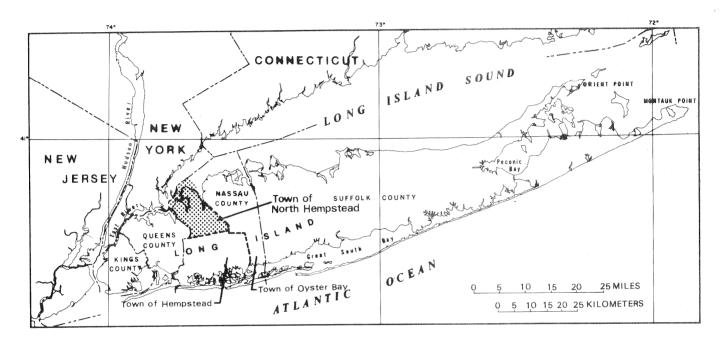


Figure 1.--Location of Town of North Hempstead, Nassau County.

#### INTRODUCTION

The increasing use of ground water within Nassau County has brought about the need for detailed knowledge of the hydrology and hydrogeologic framework of the ground-water system underlying the area. This knowledge is needed to aid in (1) the construction of analog and computer models of the hydrologic system to predict the effects of anticipated stresses on the system; (2) water-quality and wastewater-disposal studies, and (3) studies of long-term changes in ground-water levels, withdrawals, chemical quality, and artificial recharge of ground-water bodies. Results of these studies will assist in developing management decisions for the conservation of the ground-water supply, which is the County's sole source of freshwater.

# Purpose and Scope

The purpose of this report is to (1) describe the geologic framework underlying the Town of North Hempstead and the hydrogeologic units that form the ground-water reservoir in that area, and (2) furnish the data and interpretations upon which future hydrologic studies in the Town of North Hempstead may be based.

This report provides sections and contour maps showing the thickness of the principal hydrogeologic units underlying the Town, and the altitude of the tops of these units. It also delineates the inferred areal extent of the units that overlie bedrock and describes their composition and lateral and vertical relationships. The report does not, however, delve deeply into the stratigraphy and correlation of the geologic units because these factors are not considered important to the study of the hydrogeology and because the data available for correlation of time-stratigraphic units are not adequate at this time.

The maps and sections are based on all available geologic data and well-drillers' logs. Geologic correlations are revised from those of Swarzenski (1963), Isbister (1966), and Fuller (1914). The thickness of each hydrogeologic unit was derived from drillers' logs and from the elevation of the top of the units as estimated for grid points 2,000 ft apart. The grid-point system was necessary because of the unequal distribution of log data.

# Location and Extent of Study Area

The Town of North Hempstead encompasses an area of  $54~\text{mi}^2$  in the northwest part of Nassau County (fig. 1) and occupies approximately 17 percent of the land area of the County. In 1970, the population of the town was reported to be 235,007, or 16 percent of the County's population at that time.

### **Previous Investigations**

The geology and ground-water resources of Long Island have been described by Burr and others (1904), Veatch and others (1906), Crosby (1910), Fuller (1914), and Suter and others (1949). These reports are islandwide in scope and contain information on the Town of North Hempstead. Detailed studies of the geology and hydrology of Nassau County were more recently made by Perlmutter and Geraghty (1963), Swarzenski (1963), and Isbister (1966). Soren (1971, 1978) has described the geology and hydrology of adjacent Queens County. Cohen and others (1968) summarized the results of hydrologic studies by the U.S. Geological Survey on Long Island up to 1966.

The surficial geology, geologic history, geologic nomenclature, and correlation of Pleistocene deposits on Long Island have been described by Woodworth (1901), Fleming (1935), MacClintock and Richards (1936), Sirkin (1968), and Sirkin and Mills (1975). Mills and Wells (1974), Sirkin (1968), and Sirkin and Mills (1975) described the deformation of Pleistocene deposits in the Port Washington area. Weiss (1954) and Upson (1970) discussed the problem of recognition and correlation of the Gardiners Clay. Correlation of Cretaceous strata is discussed in Perlmutter and Todd (1965) and Sirkin (1974).

Contour maps of the upper surface of the principal geologic units underlying Long Island have been made by de Laguna and Brashears (1948), Suter and others (1949), the New York State Water Power and Control Commission (1950), and Jensen and Soren (1974).

Records of wells in Nassau County (water-well-drillers' logs and well-construction data) can be found in Leggette and others (1938), Roberts and Brashears (1946), and the New York State Water Power and Control Commission (1958). Previous geologic correlations of many of the drillers' logs of these wells are given in Suter and others (1949).

The geology and subsurface morphology of Long Island Sound have been described by Tagg and Uchupi (1967) and Grim and others (1970). Walter S. Newman (written commun., 1966) and Simon Schaffel (written commun., 1971) made studies of the subsurface geology and Pleistocene and Holocene history of the western part of the Long Island Sound area.

#### **Acknowledgments**

The writer expresses appreciation for the generous assistance of water-supply superintendents, well drillers, and the many individuals who furnished access to wells and provided various types of data and well-location maps. Special thanks are extended to Daniel J. Larkin, Regional Supervisor of Environmental Analysis, and Robert J. O'Reilly, Principal Engineering Technician of the New York State Department of Environmental Conservation, for making available records of wells and other data essential to this study.

The writer was also assisted by M. J. McEachern, P. J. Acker, and D. F. Dellagiarino, all of whose assistance is gratefully acknowledged.

#### Sources of Data

#### TYPE OF DATA

The geologic data available for correlation in this study consisted primarily of well-drillers' logs. The drilling methods most commonly used on Long Island are percussion (cable tool) and rotary—either standard rotary, where drilling mud (natural, bentonitic, or organic) is circulated, or reverse rotary, where water is circulated to maintain the hole and flush out the cuttings. Because drillers' logs may vary significantly in description of sediment types, their reliability for subsurface correlation is generally questionable.

The drillers' logs were supplemented by sample logs made by personnel of the U.S. Geological Survey during the examination of bailer (cable tool) and mud-ditch (flume) samples and split-spoon core samples (rotary and driven), all of which were obtained from well drillers.

Geophysical logs (electrical-resistivity, spontaneous potential, and gamma-ray) made on logging units owned by the well-drilling companies, commercial well-logging companies, and the U.S. Geological Survey were also available for some wells. Most of the electrical-resistivity and gamma-ray logs were not spaced closely enough to significantly aid in correlation of available data. However, they were valuable in substantiating the type of sediments penetrated and reported by the drillers. The most reliable logs were the sample logs; however, most samples from which these were made were available from only certain sections of the drilled holes. Sample logs made from examination of cuttings collected from mud ditches were considered less reliable than bailer and core samples and were used only when no other data were available.

## METHODS OF CORRELATION

Correlation of geologic data given in drillers' and geologists' (sample) logs was done in two steps. First, lithologic strip logs showing the rock units penetrated during drilling were drawn and compared. The main lithologic sequences that form the principal hydrogeologic units are usually well defined on most strip logs because the lithologic characteristics and(or) grain size of the deposits are clearly distinguishable. When split-spoon cores were available for study, the mineralogy of the sediments in the cores was used to help determine whether the material was of probable Pleistocene or Cretaceous age. The mineralogic criteria for identification and correlation of the geologic units underlying Long Island are given by Perlmutter (1949, p. 4-46).

The second step in correlation of geologic data was to refine the initial correlations as necessary during preparation of the sections and maps of the hydrogeologic units. These procedures were generally adequate for definition and correlation of the principal hydrogeologic units; however, where a drilled hole penetrated only a short way into the suspected top of a hydrogeologic unit, reliable correlation of that unit was not possible.

Reliable definition of the contacts between hydrogeologic units from drillers' logs is sometimes difficult because drillers' lithologic descriptions may be imprecise. The contacts between sediments of Pleistocene and Late Cretaceous age in the northern part of the North Hempstead area cannot be distinguished with certainty with drillers' logs because the sediments at the base of the Pleistocene deposits are locally similar to or indistinguishable from those at the top of the Cretaceous deposits.

#### Well Data and Well Numbering

The New York State Department of Environmental Conservation assigns numbers serially by county to wells on Long Island. Nassau County well and test-hole numbers bear the prefix N. Plate 1 shows the location of wells used during this study and the location of other significant wells in the Town of North Hempstead. In plate 1 the prefix N, which should precede each well number, has been omitted to avoid crowding; for example, well N 662 is shown as 662. Elsewhere in the report all well numbers are preceded by the letter N.

Well-completion data and other pertinent information on the wells are given in table 3 (at back of report). The well-completion data were taken from well-completion reports on file at the New York State Department of Environmental Conservation office in Stony Brook, N.Y. The locations and present status (1974-76) of most of the wells were determined in the field by the author.

#### **HYDROGEOLOGY**

# Relation of Hydrogeologic and Geologic Units

Most fresh ground water underlying the Town of North Hempstead is in unconsolidated glacial deposits of Pleistocene age and coastal-plain deposits of continental and marine origin of Late Cretaceous age. These unconsolidated deposits consist of gravel, sand, silt, and clay and are underlain by bedrock of Lower Paleozoic and(or) Precambrian age. The bedrock, which is virtually impermeable, forms the base of the ground-water reservoir.

The water-bearing properties and characteristics of the aquifers, and the relationships between hydrogeologic and geologic units underlying the Town of North Hempstead, are depicted in tables 1 and 2. The correlations should not be considered direct relationships, as the tables may imply them to be. The upper and lower boundaries of the hydrogeologic units are determined mainly from gross lithologic differences between units rather than the age of the deposits, which forms the basis for geologic correlation. For example, the upper and lower limits of the confining units (Port Washington confining unit and Raritan clay) are placed at intervals where the lithologic sequence changes from predominantly clay to sand or sand and gravel, and these positions may have no time-stratigraphic significance. For this reason, and because differentiation between sediments of Pleistocene and Cretaceous age is difficult and uncertain, it is quite possible that some deposits of Pleistocene age

have been included in the upper part of the Magothy aquifer, which by present definition is roughly equivalent to the Magothy Formation-Matawan Group, undifferentiated, of Late Cretaceous age. The hydrogeologic sections (plates 2, 3, 4) show the inferred extent, lateral and vertical relationships, and the variations in depth, thickness, continuity, lithology, and structure of these units.

The hydrogeologic correlations of (a) wells used in constructing the sections and maps in this report, and (b) other wells in the Town of North Hempstead, are given in table 4 (at end of report).

The geologic and hydrologic units that form the ground-water reservoir underlying Long Island are described by Perlmutter and Geraghty (1963), Swarzenski (1963), Isbister (1966), and Cohen and others (1968). In addition, two newly proposed hydrogeologic units—the Port Washington confining unit and the Port Washington aquifer—are used and defined in this report for the first time. All other geologic and hydrologic unit names used in this report are those currently used by the U.S. Geological Survey.

Many questions as to the differentiation between deposits of Pleistocene age and those of Cretaceous age, and the correlation of stratigraphic rock units of Pleistocene and Cretaceous age on Long Island, are not yet resolved. The contact between Pleistocene and Cretaceous deposits is an erosional unconformity that, in most places, is marked by an abrupt lithologic and mineralogic change. In some places, the deposits are best distinguished by mineralogic differences; in others, lithologic differences are more useful. In general, the Cretaceous deposits consist of minerals that have been subjected to long weathering and contain only chemically stable minerals or their highly altered equivalents. The Pleistocene deposits, however, contain all minerals found in the Cretaceous sediments as well as significant amounts of rock fragments and unstable minerals (Perlmutter, 1949, p. 14-15).

Lithologic differences can be used in most of the southern part of the area to distinguish between deposits of Cretaceous age and those of probable Pleistocene age. The sequence of coarse, clean sand and gravel beds of probable Pleistocene age in this area changes abruptly in most places to the silty and solid clay and fine sand beds that form the upper part of the Cretaceous deposits. This abrupt change is clearly shown on many well-drillers' logs. In the northern part of the area it has been found difficult to use lithologic differences to distinguish between Pleistocene and Cretaceous deposits, however. In this area, the deposits are of similar composition, and the glacial deposits may locally be derived largely from other Cretaceous sources (Swarzenski 1963, p. 18).

In the northern part of the area, fossiliferous zones containing shell fragments and microfossils are locally present and are considered indicative of Pleistocene age because no fossiliferous material has been reported in the Cretaceous deposits. These fossiliferous deposits have in the past been correlated with the Gardiners Clay or its equivalent. As far as is known, no studies of fossil material from the north-shore area of the Town of North Hempstead have been done. These sediments also contain pollen and spores that are now being studied; results of these studies should aid in the determination of the age of the deposits.

Table 1.--Summary of geology and water-bearing properties of deposits underlying most of Town of North Hempstead, Nassau County, New York

					Approxi-		
System	Series	Geologic unit	H. gec	Hydro- geologic unit	range in thickness (feet)	Character of deposits forming geologic unit $\frac{2}{}$	Water-bearing properties $\frac{2}{}$
X	Ногосепе	Undifferentiated artificial fill, salt-marsh and swamp deposits, stream alluvium, and shoreline deposits			0-50	Sand, gravel, silt, and clay; organic mud, peat, loam, and shells. Colors are gray, green, black, and brown.	Permeable zones near shoreline or in stream valleys may yield small quantities of fresh or brackish water at shallow depths. Clay and silt beneath northshore harbors retard salt-water encroachment and confine underlying aquifers.
ячияттало	Pleistocene	Upper Pleistocene deposits	Shallow unconfined	Upper glacial aquifer	6–340	Till, composed of unsorted clay, sand, gravel, and boulders. Present in northern part of area.  Outwash deposits of stratified brown sand and gravel.  May also contain some lacustrine and marine deposits consisting of clay, silt, and sand; locally fossiliferous.	ditions of perched water and impede downward per- colation of precipitation. Outwash deposits of sand and gravel are highly per- meable. Wells screened in glacial outwash depos- yield as much as 1,400 gal/min. Specific capaci- ties of wells range from 5 to 57 gal/min per ft  of drawdown. Water is generally fresh and uncon- fined.
S	snoəo	Unconformity  Matawan Group- Magothy Formation undifferentiated	Principal aquifer 1/	Magothy aquifer	0-530	Clay, silt, sandy clay, and sand, fine to medium, clayey, white, gray, yellow, pink and multicolored, in lenticular beds. May contain lenticular beds of coarse sand and gravel in lower 50-100 feet of unit. Lignite, pyrite, and iron oxide concentrations may occur throughout the unit.	Moderately to highly permeable. Wells screened in basal zone of aquifer yield as much as 1,400 gal/min. Specific capacities commonly range from 15 to 30 gal/min per ft of drawdown, but may be as high as 50 gal/min/ft. Aquifer is principal source for public supply. Water is generally of excellent quality. Degree of confinement under artesian pressure is variable; however, artesian conditions generally prevail in the deeper part of the aquifer. Hydraulic continuity may exist between the Magothy aquifer and contigous Publistocene aquifers.
CKETACEOU	Upper Creta	namen and the second se	R (co)	Raritan clay (confining unit)	0-195	Clay, solid and silty, gray, white, red, and mottled. May contain lenses or layers of fine to medium sand which may locally contain gravel. Sand layers frequently occur near top of unit.  Lignite and pyrite are common.	Relatively impermeable. Confines water in underlying Lloyd aquifer but does not prevent movement of water between Magothy and Lloyd aquifers.
		Fo Lloyd Sand Member	Deep confined	Lloyd	0-205	Sand, fine to coarse, white, yellow, or gray, and gravel, commonly in a clayey matrix. Contains lenses and layers of solid or silty clay. Beds are usually lenticular and frequently show great lateral changes in composition.	Moderately permeable. Wells yield as much as 1,600 gal/min; specific capacities range commonly from 10 to 20 gal/min per ft of drawdown. Constitutes only source of large supplies on parts of Great and Manhasser Necks. Water is confined under artesian pressure; some wells flow. Water is generally of excellent quality but may have high iron content.
LOWER	АИВ (ОК)	Unconformity Crystalline rocks	æ	Bedrock	Not known	Metamorphic and igneous rocks; muscovite-biotite schist, gneiss, and granite (?). Weathered zone at top ranges in thickness from 0 to more than 67 feet.	Relatively impermeable. Contains some water in fractures but is impracticable to develop owing to low permeability.

 $\underline{1/}$  From Swarzenski (1963)  $\underline{2/}$  Modified from Swarzenski (1963) and Isbister (1966)

Table 2.--Summary of geology and water-bearing properties of deposits underlying northern part of Great Neck and Manhasset Neck, Town of North Hempstead, Nassau County, New York

Water-bearing properties $\frac{2}{}$	Permeable zones near the shoreline or in stream valleys may yield small quantities of fresh or brackish water at shallow depths. Clay and silt beneath the northshore harbors retard salt-water encroachment and confine underlying aquifers.	Till, relatively impermeable, may cause local conditions of perched water and impede downward percolation of precipitation.  Outwash deposits of sand and gravel are highly permeable. Wells screened in glacial outwash deposits, generally at depths of less than 130 ft, yield as much as 1,400 gal/min. Specific capacities of wells range from 5 to 57 gal/min per ft of drawdown. Water is generally fresh and unconfined.	Relatively impermeable. Confines water in underlying Port Washington aquifer but does not prevent movement of water between upper glacial aquifer and Port Washington aquifer. Lenses of sand and gravel may provide small sources of water supply and may permit local interchange of water with adjacent aquifers.	Moderately to highly permeable. Yields as much as 800 gal/min to wells. Specific capacities are commonly between 10 and 20 gal/min per ft of drawdown. Constitutes only source of large supplies of water in parts of Manhasset and Great Necks. Water is confined under artesial pressure. Generally contains fresh water but may have high iron content; locally may contain brackish water.	Relatively impermeable. Contains some water in fractures, but impracticable to develop owing to low permeability.
Character of deposits forming geologic unit $\frac{2}{3}$	Sand, gravel, silt, and clay; organic mud, peat, loam, and shells. Colors are gray, green, black and brown.	Till, composed of unsorted clay, sand, gravel, and boulders. Present in northern part of area. Outwash deposits of stratified brown sand and gravel. May also contain some lacustrine and marine deposits consisting of clay, silt, and sand; locally fossiliferous.	Clay, solid and silty, gray, gray-green, white, red, mottled, and brown, containing lenses or layers of sand and gravel. May locally contain lighte, shells, Foraminifera and other microfossils.	Sand, fine to coarse, white, yellow, gray and brown, or gray and gravel, with interbedded clay, silt, and sandy clay.	Metamorphic and igneous rocks; muscovite-biotite schist, gneiss, and granite(?). Weathered zone at top ranges in thickness from 0 to more than 67 feet.
Approxi- mate range in thickness (feet)	0-50	6–340	0-287	0-193	Not known
Hydro- geologic unit			Port Washington confining unit	Port Washington aquifer	Bedrock
Geologic unit	Undifferentiated artificial fill, salt-marsh and swamp deposits, stream alluvium, and shoreline deposits.	Upper Pleistocene deposits Thoonformity	Deposits of Pleisto- cene and Holocene(?) age, undifferenti- ated. May locally include eroded remnants of the clay member of the Raritan Formation. [Gardiners Clay of Swarzenski (1963)].	Deposits of Pleisto- cene age, undiffer- entiated and local erosional remnants of the Lloyd Sand Member of the Raritan Formation. [Jameco Gravel of Swarzenski (1963)].	Crystalline rocks
em Series	Ногосепе	Pleistocene	, pleistocene Jocene(?)	Upper Cretaceo	PRECAMBRIAN PALEOZOIC LOWER LOWER
System	ARY	ОЛУТЕВИ	CRETACEOUS-QUATERNARY		

 $\underline{1}/$  From Swarzenski (1963)  $\underline{2}/$  Modified from Swarzenski (1963) and Isbister (1966)

The correlation of stratigraphic units of Pleistocene and Cretaceous age on Long Island involves the correlation of (a) Pleistocene deposits referred to as the Gardiners Clay and Jameco Gravel, and (b) Cretaceous deposits, with deposits of similar age in New Jersey. For example, recent studies by Sirkin (1974) have indicated that deposits included in the Raritan Formation on Long Island may be equivalent in part to those included in the Magothy Formation in New Jersey. Because hydrogeologic units do not need to be equivalent to stratigraphic units, questions as to stratigraphy and correlation of these deposits are not discussed further in this report. Additional information on this subject is given in the reports mentioned in the section "Previous Investigations."

The division of the sedimentary sequence into separate hydrogeologic units that together form the ground-water reservoir underlying the Town of North Hempstead is essentially the same in this report as in works by Swarzenski (1963) and Isbister (1966). Many of the correlations of well-drillers' logs used in this study are the same as those made by Swarzenski (1963) and Isbister (1966); therefore, this report could in some respects be considered an updating of these earlier studies.

Swarzenski (1963, p. 32) considered the Lloyd Sand Member of the Raritan Formation (Lloyd aquifer) and the Jameco Gravel (Port Washington aquifer) to be hydrologically connected and to form what was at that time called the deep confined aquifer (tables 2 and 3). He regarded the lower limit of the aquifer as the bedrock surface and the upper limit as the clay member of the Raritan Formation (Raritan clay) and the Gardiners Clay (Port Washington confining unit). The premise that the two units are hydrologically connected is not questioned in this report. (See pl. 3, sections C-C' and D-D', and pl. 4, section E-E'.)

The Port Washington and Lloyd aquifers and the Port Washington confining unit and Raritan clay are treated as four distinct hydrogeologic units in this report because (1) this approach will facilitate future studies of the hydrology of each unit as a whole, and (2) the individual units may have different hydraulic characteristics as a result of their separate origin. The reasons why new hydrogeologic names have been proposed in this report for the Jameco Gravel and Gardiners Clay of Swarzenski (1963) are given in the sections "Port Washington aquifer" and "Port Washington confining unit."

# Hydrogeologic Units

#### **BEDROCK**

Bedrock of Lower Paleozoic and(or) Precambrian age underlies all of western Long Island (Fisher and others, 1962). The bedrock generally consists of schist and gneiss and contains many igneous intrusions; its upper part is deeply altered by weathering (Perlmutter, 1949, p. 13). The zone of decay commonly consists of red, gray, yellow, white, green, or mottled colored clay, or sandy clay with partly decayed rock and mineral fragments

(Perlmutter, 1949, p. 13). If good core samples are available, a definite downward gradation from an almost pure clay to "sound" rock can be observed. Decayed bedrock samples are characterized by angular and ragged crystals of quartz, garnet, biotite, amphibole, feldspar, and their altered equivalents. The weathered zone ranges from 0 to more than 67 feet in thickness and may be locally absent as a result of erosion.

Eighteen of the 34 wells that have been drilled into bedrock in the Town of North Hempstead probably penetrated weathered bedrock. Most drillers' logs describe the bedrock as being composed of blue, brown, gray, or multicolored clay, sandy clay, or sand and clay. The clay is usually described as being "tough" and occasionally containing stones or boulders. Without indicative cores or rock samples, weathered bedrock cannot be reliably distinguished, nor can the precise top of the weathered bedrock zone be determined.

The altitude and configuration of the bedrock surface in the Town of North Hempstead are shown in figure 2. The bedrock surface dips 62 ft/mi southeastward and ranges from 166 feet below sea level along the north shore to more than 900 feet below sea level in the southeast part of the Town of North Hempstead. The configuration of most of the bedrock surface may be attributed to fluvial erosion before Late Cretaceous time; the configuration of the bedrock surface in the north half of Great Neck and Manhasset Neck may have been locally affected by glacial and fluvial erosion during Pleistocene time. Available well data are sufficient to define only the general structural trend of the bedrock surface in the North Hempstead area.

Bedrock is generally regarded as the base of the ground-water reservoir on Long Island because of its density and low permeability. No wells in the Town of North Hempstead are known to obtain water from bedrock; it is possible, however, that joints and fractures in the bedrock could provide yields sufficient for some domestic supplies.

#### LLOYD AQUIFER

The Lloyd aquifer is the equivalent of the Lloyd Sand Member of the Raritan Formation of Late Cretaceous age (Cohen and others, 1968, p. 18). The Lloyd deposits overlie bedrock and are overlain by the Raritan clay. The inferred extent, altitude, and configuration of the top of the Lloyd aquifer in the Town of North Hempstead are shown in figure 3. The lithologic composition, as indicated by drillers' logs and lateral relationships of the aquifer, are shown on plates 2 to 4, the locations of the sections are shown on plate 1 and in figure 3.

The Lloyd aquifer consists of discontinuous layers of gravel, sand, sandy clay, silt, and clay. As determined from the best available samples, the sand and gravel beds are composed of yellow, white, and gray quartz and contain minor amounts of chert and other stable minerals. The quartz grains are angular to subrounded, and the beds contain varying amounts of interstitial clay. White, gray, and buff silt and clay lenses are common. Thin lenses and scattered particles of lignite also occur.

Drillers usually describe the Lloyd sediments in the Town of North Hempstead as consisting of white and, occasionally, light-gray to dark-brown coarse sand and gravel or grit, with some interbedded fine to medium sand and clay. The clay is usually described as brown or gray but may occasionally be described as white, pink, red, or multicolored.

The Lloyd aquifer, as inferred from available data, may locally consist of either a unit composed largely of sand and gravel, as shown on the log of well N 24 (pl. 2, section B-B') or as a unit that consists of a lower sand and gravel sequence and a finer grained sequence above. The two units are separated by a thin, clayey zone, as shown on the log of well N 8477 (pl. 4, section E-E'). The clay zone generally consists of from one to three clay beds that cannot be correlated reliably over any great distance.

Drillers' logs indicate that the upper, finer grained sequence commonly consists of beds of sandy clay and fine to medium sand that generally contain thin beds of clay. Elsewhere, the logs indicate that the upper part may consist of gravelly clay, as shown on the log of well N 1958 (pl. 3, section D-D'), or sand and gravel.

By the end of 1975, 20 wells had penetrated the full thickness of the Lloyd aquifer. The average thickness of the aquifer, as determined from drillers' logs, is 132 ft but ranges in thickness from 0 to more than 200 ft (fig. 4).

The top of the Lloyd aquifer decreases in altitude southeastward from  $155~\rm ft$  below sea level in the Great Neck area to more than  $650~\rm ft$  below sea level in the southeast corner of the Town. (See fig. 3.)

The Lloyd is a major aquifer in the Town of North Hempstead and is the source of water for 15 public-supply wells. The aquifer is probably hydraulically continuous with the adjacent Port Washington aquifer and the upper glacial aquifer in the Great Neck and Manhasset Neck areas. Water in the Lloyd aquifer is confined under artesian pressure beneath the Raritan clay.

Well yields during test pumping of large-capacity public-supply wells screened in the Lloyd aquifer have ranged from  $510~\mathrm{gal/min}$  to as much as 1,600 gal/min. The specific capacities of these wells range from 6 to 31 gal/min per foot of drawdown.

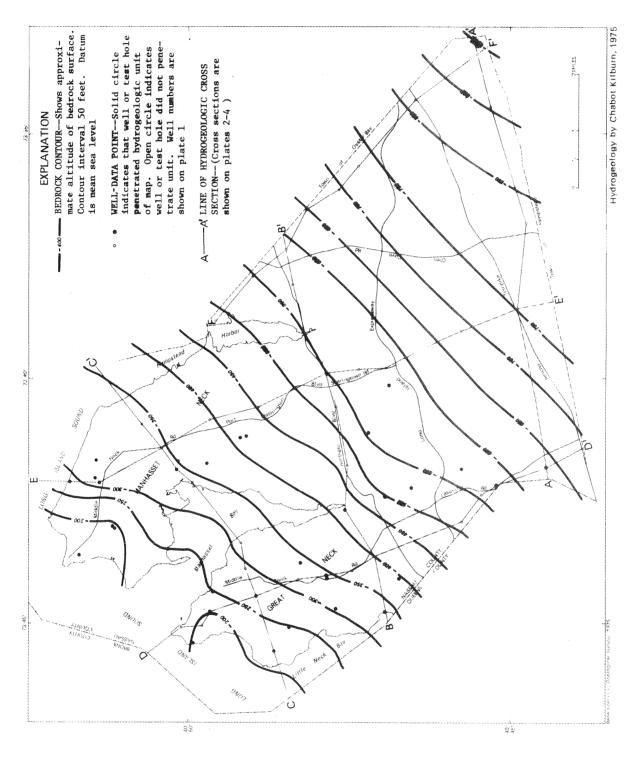


Figure 2.--Altitude and configuration of bedrock surface underlying Town of North Hempstead, Nassau County, Long Island, N.Y.

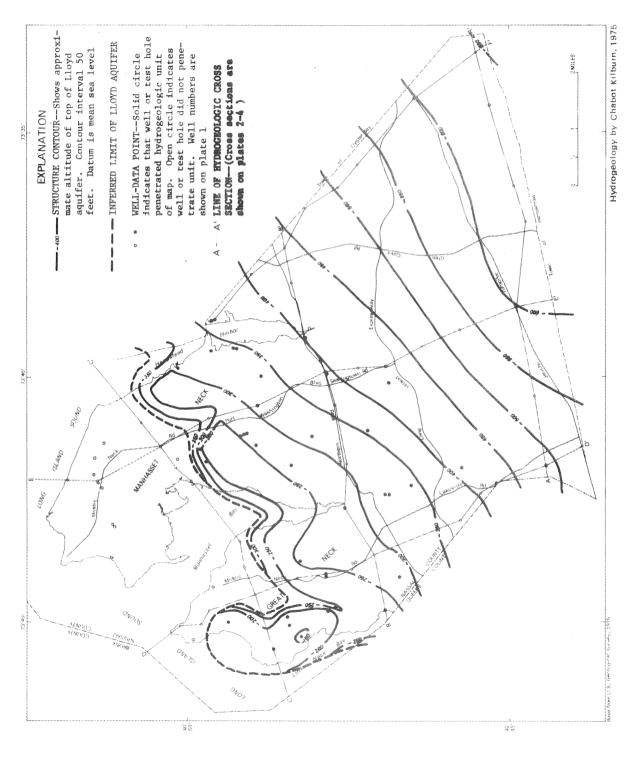


Figure 3.--Inferred extent, altitude, and configuration of top of Lloyd aquifer.

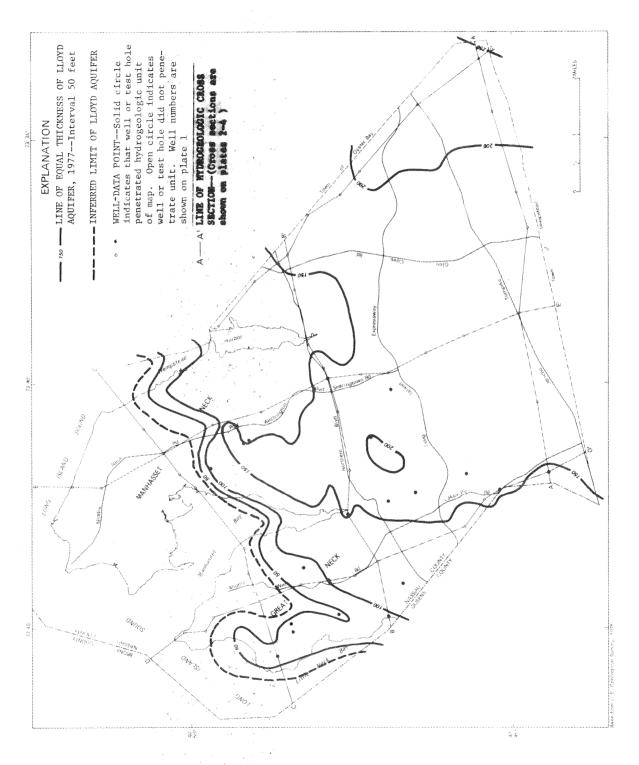


Figure 4.--Approximate thickness of Lloyd aquifer.

#### RARITAN CLAY

The Raritan clay is a distinct hydrogeologic unit that extends throughout much of the Town of North Hempstead (fig. 5). In this area the Raritan clay may be equivalent to the unnamed clay member of the Raritan Formation of Late Cretaceous age. The clay overlies the Lloyd aquifer and is in turn overlain by the Magothy aquifer. The composition and relationship of the Raritan clay to other hydrogeologic units is shown in tables 2 and 3 and plates 2 to 4.

The thickness of the clay, as determined from drillers' logs, ranges from 20 ft to 195 ft; within the Town of North Hempstead it is inferred to range from 0 to about 200 ft (fig. 6).

The Raritan clay consists mainly of clay and varying amounts of silt and sand. It is variously described as light to dark gray with beds of red, white, yellow, or mottled clay. Drillers have also noted sandy zones within the upper part of the clay. Core samples show that the clay may be laminated and may contain pyrite and lenses of lignite.

The Raritan clay is a significant hydrogeologic unit because it confines water in the underlying Lloyd aquifer. Although its hydraulic conductivity is very low, it does not entirely prevent movement of water between the Magothy and Lloyd aquifers. Some public-supply wells and other wells obtain part of their water supply from the sandy zones in the upper part of the Raritan clay.

#### MAGOTHY AQUIFER

The Magothy aquifer is composed of Upper Cretaceous sediments that overlie the Raritan clay. It is in turn overlain by deposits of Pleistocene age that form the upper glacial aquifer (pls. 2-4 and tables 2, 3).

The Magothy aquifer consists mainly of lenticular and discontinuous beds of very fine to medium sand, commonly clayey or containing thin clay lenses, that are interbedded with clay and sandy clay, silt, and some sand and gravel. Beds of coarse sand and gravel commonly occur in the lower 100 to 150 ft of the aquifer. This coarser zone may have been referred to in some reports as "basal Magothy." The sediments in the aquifer seem to grade upward from coarser grained at the base to finer grained at the top. The greater proportion of the clay and sandy clay occurs in the upper half of the aquifer. Thick beds of clay occur locally at the top of the aquifer (see pl. 4, section E-E', well N 4327) and seem to be distributed irregularly throughout the area.

Most of the original Cretaceous deposits in the Long Island Sound area were extensively eroded or removed before early(?) Pleistocene time. The northern limit of these deposits and of the Magothy aquifer is an erosional scarp, or ridge, into which later Pleistocene streams cut deep, north-trending valleys. These valleys were modified further by still later glacial action and are now buried beneath deposits of Pleistocene age (pls. 2-4 and fig. 7). The erosion in many of these valleys was sufficient to cut through the

Magothy aquifer into the underlying Raritan clay. The upper surface of the Magothy in the area not cut by valleys ranges in altitude from slightly below sea level to more than 200 ft above sea level (fig. 7).

The inferred extent, altitude, and configuration of the top of the Magothy aquifer in the Town of North Hempstead are shown in figure 7. The continuity, composition, and relationships of the aquifer to adjacent hydrogeologic units are shown in plates 2 to 4 and tables 2 and 3. The aquifer ranges in thickness from 0 to more than 500 ft (fig. 8); its maximum known thickness in the Town of North Hempstead is 530 ft at well N 2602 in the southeast corner of the Town (pl. 1).

It is quite possible that the uppermost part of the Magothy contains deposits of Pleistocene age or, conversely, that the lower part of the upper glacial aquifer contains Cretaceous deposits because the boundary between the Cretaceous and Pleistocene deposits in some areas is indistinguishable. In the area north of the glacial outwash plain (pl. 1), it is often difficult to differentiate between the upper glacial aquifer and the upper part of the Magothy aquifer from drillers' logs because Pleistocene deposits rest upon Cretaceous sediments of similar composition and show no significant lithologic differences that drillers would be likely to note. Also, many drillers' logs of wells north of Northern Boulevard are old and seem to be generalized; determination of the contact between the units from these logs is therefore of doubtful reliability. Some sample logs that were used in this study were prepared from cuttings collected from the mud ditch and are probably contaminated by recirculated materials. Thus, precise determination of the depth of the contacts from these samples is also uncertain.

The Magothy aquifer is the principal aquifer underlying Long Island and is the island's main source of water for public supplies. The sandbeds within the aquifer are moderately to highly permeable. The reported yield during test pumping of 90 large-capacity wells screened in the Magothy aquifer in the Town of North Hempstead ranged from 300 gal/min to as much as 1,543 gal/min. The average yield of the 90 wells was 1,000 gal/min, and specific capacities ranged from 7 to 77 gal/min per foot of drawdown, with an average specific capacity of 29.6 (gal/min)/ft. Wells screened in the basal part of the aquifer may yield up to 1,400 gal/min.

The large amount of clay in the upper half of the aquifer causes the water to become increasingly confined with depth. Along the north shore, the Magothy aquifer is probably in hydraulic continuity with the adjacent Port Washington aquifer. The Magothy also has a generally high degree of hydraulic continuity with the overlying upper glacial aquifer, but the degree of continuity may vary considerably from place to place.

The upper part of the Magothy aquifer is locally unsaturated in the Town of North Hempstead. The location and approximate thickness of the unsaturated zone within the aquifer in June 1976 is shown in figure 9. The maximum thickness of the unsaturated zone during this period is estimated to have been 80 ft. Where the Magothy is unsaturated, the upper surface of the saturated zone is the water table; elsewhere the Magothy is saturated and the water table is in the overlying upper glacial aquifer.

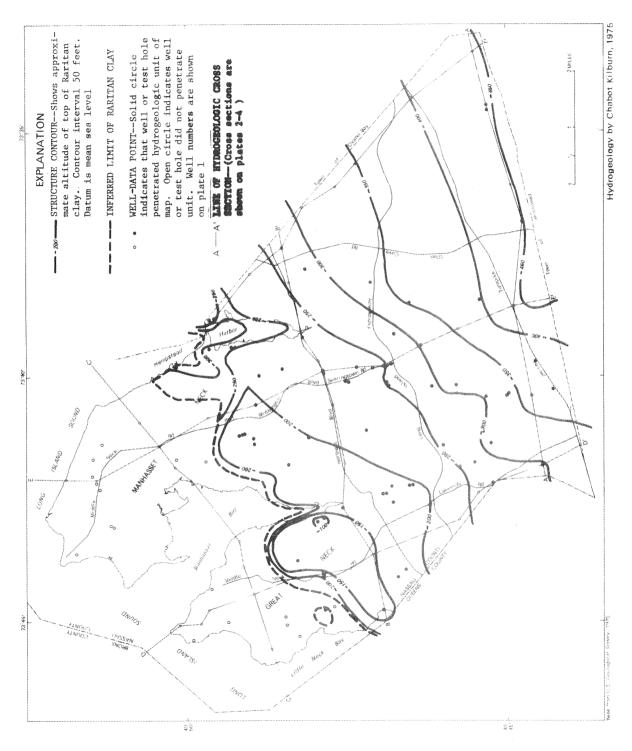


Figure 5. -- Inferred extent, altitude, and configuration of top of Raritan clay.

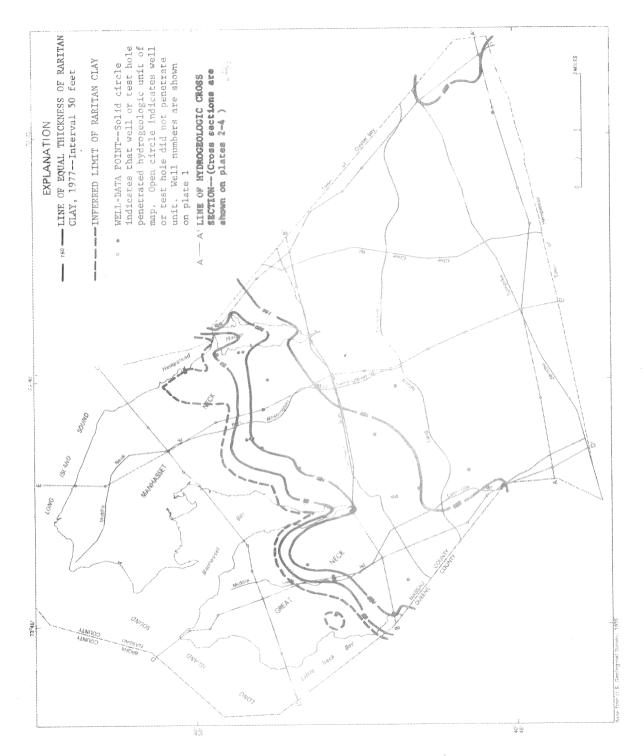


Figure 6.--Approximate thickness of Raritan clay.

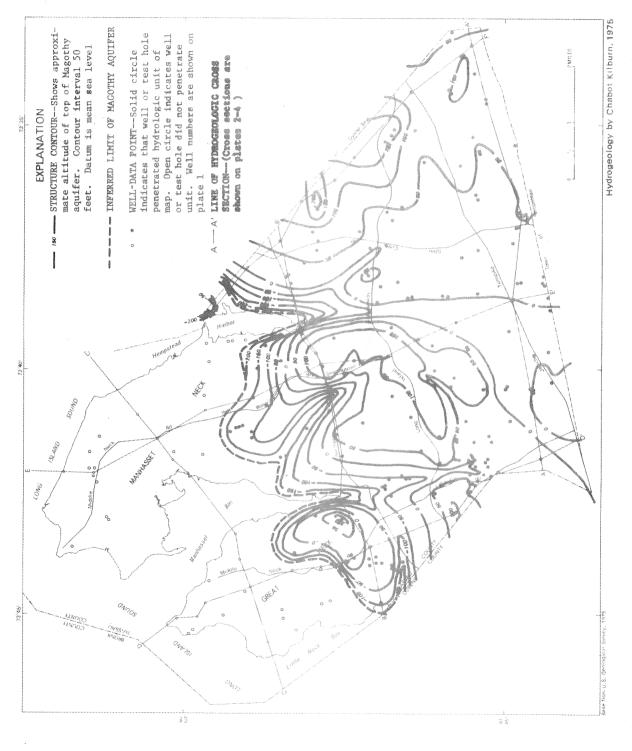


Figure 7.--Inferred extent, altitude, and configuration of top of Magothy aquifer.

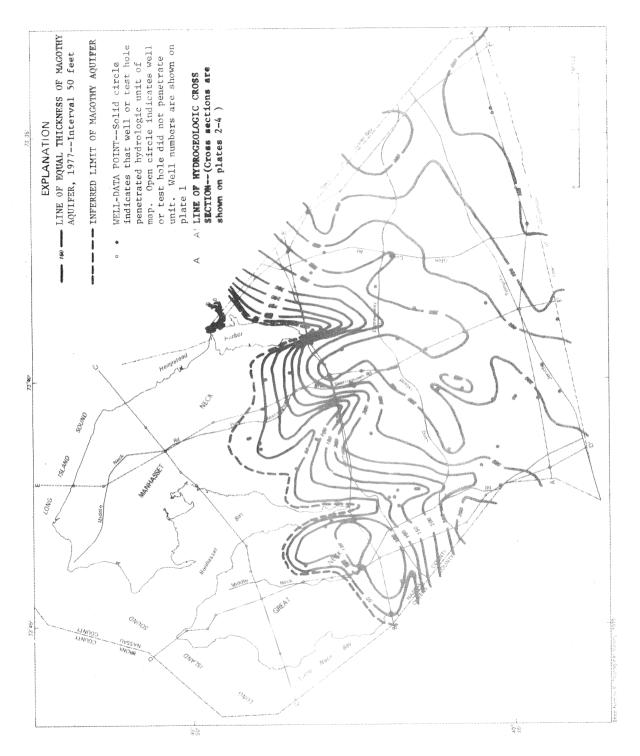


Figure 8.--Approximate thickness of Magothy aquifer.

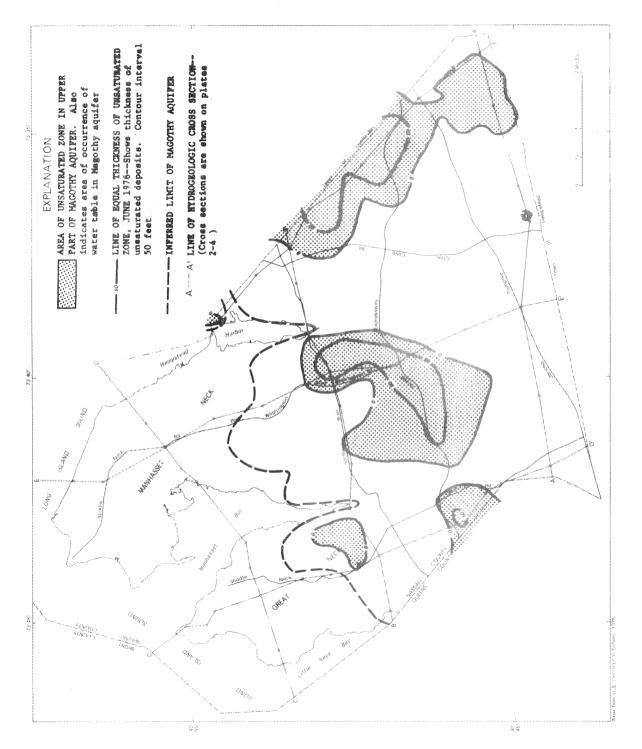


Figure 9.--Approximate location and thickness of unsaturated zone at top of Magothy aquifer, Town of North Hempstead, June 1976.

#### PORT WASHINGTON AQUIFER

The name Port Washington aquifer is here given to a sequence of deposits of Pleistocene and (or) Late Cretaceous age that underlie the north shore area of the Town of North Hempstead. These deposits were called Jameco Gravel by Swarzenski (1963, pl. 4-7).

The name Port Washington aquifer is used in this report in preference to the names Jameco Gravel or Jameco aquifer because these imply correlation, which is questionable, with the Jameco Gravel in southern Queens and southwestern Nassau Counties. Swarzenski (1963, p. 18-19) noted that the deposits in northwestern Nassau County could not be reliably dated but that they were derived largely from Cretaceous sources and contained only a small admixture of igneous rock pebbles or other erratic material. The Jameco Gravel cannot be reliably identified from well-drillers' samples and was recognized by Swarzenski only where it was overlain by a clay sequence that he considered to be Gardiners Clay.

The deposits that form the Port Washington aquifer form a distinct hydrogeologic unit that rests upon bedrock and is overlain by a thick confining clay sequence herein named the Port Washington confining unit. The south edge of the deposits overlap and abut against the adjacent Cretaceous units. The sediments of the Port Washington aquifer form part of the valley fill in the channels cut into the Cretaceous deposits.

The inferred extent, altitude, and configuration of the top of the Port Washington aquifer are shown in figure 10. The inferred limits of the aquifer beneath Long Island Sound and the Manhasset Bay area, as shown in plate 3, sections C-C' and D-D' and figure 10, were drawn on the assumption that erosion after the deposition of the overlying confining unit removed the deposits from the area. Data to support these inferences are not available, however.

The top of the Port Washington aquifer ranges in altitude from 60 ft below sea level to more than 300 ft below sea level (fig. 10). The irregular surface of the top of the unit is probably the result of erosion before deposition of the overlying unit. The continuity, general composition, and lateral relationships of the Port Washington aquifer with other hydrogeologic units are shown in plate 2, section B-B', and plates 3 and 4.

The composition and thickness of the Port Washington aquifer vary considerably. The aquifer consists mainly of sand or sand and gravel and varying amounts of interbedded clay, silt, and sandy clay. Drillers' logs indicate that the aquifer may also contain thick sections of clay or sandy clay locally and that the amount of sand or sand and gravel may vary considerably. The aquifer ranges from 0 to more than 150 ft in thickness (fig. 11); it is thickest in the central parts of Great Neck and Manhasset Neck, where it probably averages over 100 ft in thickness.

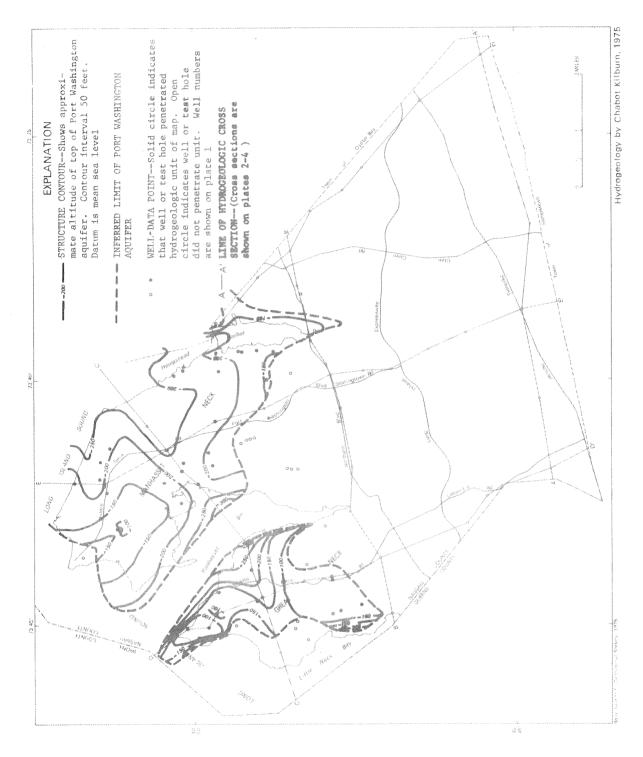


Figure 10.--Inferred extent, altitude, and configuration of top of Port Washington aquifer.

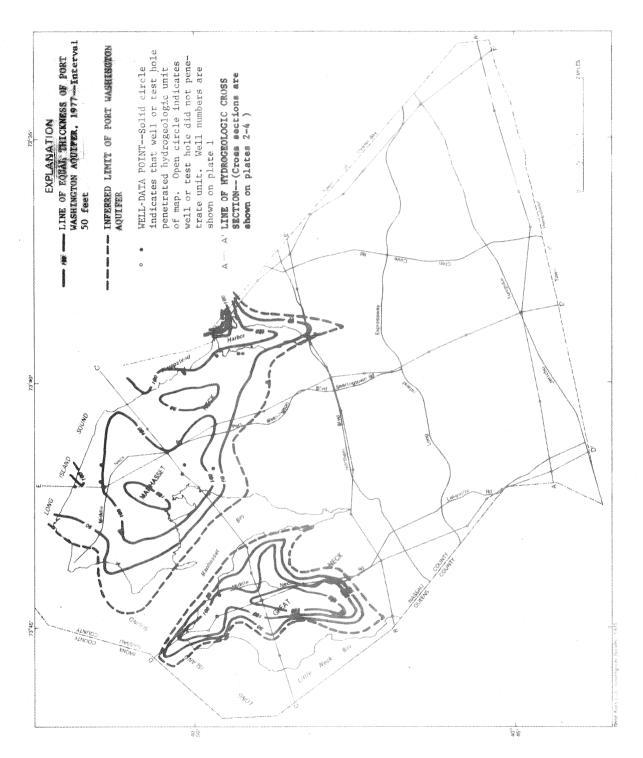


Figure 11. -- Approximate thickness of Port Washington aquifer.

The difficulty in identification of the deposits in the Port Washington aquifer from drillers' logs and from core and other types of lithologic samples, and the uncertainty in determining the age of these deposits, has led to differing correlations of the geologic unit or units that form the aquifer. Most of these deposits were correlated with the Lloyd Sand Member of Late Cretaceous age by De Laguna and Perlmutter (1949). Swarzenski (1963, p. 4-6) seems to have correlated most of these deposits with the Jameco Gravel of Pleistocene age because they were beneath a clay sequence that locally contained marine fauna (Gardiners Clay). Swarzenski's map of Cretaceous deposits, and his sections (Swarzenski, 1963, pls. 3-6), imply that erosion has removed all Cretaceous deposits north of the limit shown on his map and sections.

The author believes it quite possible that not all Cretaceous deposits were removed from the area north of the inferred limits of the Lloyd aquifer and Raritan clay as shown in figures 3 and 5. In this area, erosional remnants of the Cretaceous deposits could be covered by deposits of Pleistocene age, and the Pleistocene deposits would overlie bedrock between the Cretaceous remnants. Therefore, the Port Washington aquifer could locally consist of remnants of the Lloyd Sand Member of the Raritan Formation or deposits of Pleistocene age, or a combination of the two.

The Port Washington aquifer is moderately to higly permeable and is a major aquifer in the northern parts of Great Neck and Manhasset Neck. The reported yields during pumping tests of five public-supply wells screened in the aquifer ranged from 305 gal/min to 1,200 gal/min. The specific capacities of the wells ranged from 6 gal/min per foot of drawdown to 21 gal/min per foot of drawdown. Water in the aquifer is confined beneath the Port Washington confining unit. The hydrogeologic relationships between the Port Washington aquifer and the abutting Lloyd, Magothy, and upper glacial aquifers, as shown in plates 2-4, suggest that these deposits could be in lateral hydraulic continuity. Potentiometric studies of the head in the Lloyd aquifer made by Swarzenski (1963) and Kimmel (1973) tend to verify a lateral hydraulic continuity between the Port Washington and Lloyd aquifers.

#### PORT WASHINGTON CONFINING UNIT

The name Port Washington confining unit is here given to a sequence of deposits of Pleistocene or Late Cretaceous to Holocene(?) age that occur locally along the north shore area of Nassau County. These deposits were called the Gardiners Clay by Swarzenski (1963) and Isbister (1966).

The name Port Washington confining unit is used in this report in preference to the name Gardiners Clay because the latter implies correlation, which is questionable, with the Gardiners Clay elsewhere on Long Island. The problems relating to the correlation of the Gardiners Clay are not considered in this report but have been discussed by Weiss (1954), Upson (1970), and Sirkin and Mills (1975).

The deposits that form the Port Washington confining unit overlie the Port Washington aquifer or overlap the adjacent Cretaceous units and may

also form part of the valley fill that occupies channels cut into the older Cretaceous deposits. The inferred extent, altitude, and configuration of the top of the Port Washington confining unit in the Town of North Hempstead are shown in figure 12. The continuity, composition, and lateral relationships of the unit with other adjacent hydrogeologic units are shown in plates 2 (section B-B') through 4 and in tables 2 and 3.

The Port Washington confining unit consists of clay and silt with scattered lenses of sand or sand and gravel. A fossiliferous zone, reported to contain Foraminifera, diatoms, and fragments of oyster and clam shells, occurs locally in the upper part of the clay sequence. (See figs. 4, 6, and Swarzenski, 1963, pls. 4-7.) Shell fragments are also occasionally reported from the lower parts of the unit, but this may be due to the caving of materials from the upper parts of the hole.

The top of the confining unit ranges in altitude from 19 ft above sea level in Great Neck to possibly more than 200 ft below sea level in a postulated buried valley underlying Manhasset Bay (fig. 12). Most of the upper surface of the unit in Great Neck is within the -50 ft contour, whereas in Manhasset Neck, most of the surface is 40 to 60 ft deeper--that is, within the -100 ft contour (pl. 3, section C-C' and fig. 13). The difference may be due in part to the effects of deformation by ice or to the thickness of younger clay beds of Pleistocene and Holocene(?) age that may occur only in Great Neck.

The confining unit (fig. 13) varies considerably in thickness because it was deposited upon the highly eroded surface of the Port Washington aquifer and because its upper surface has likewise been eroded. The maximum thickness penetrated by wells in Manhasset Neck is about 190 ft, in well N 6095 in Port Washington, whereas in Great Neck, in well N 290, it is 234 ft. However, the reliability of the driller's log of well N 290 is uncertain.

Difficulties in recognition and correlation of the geologic units that form the Port Washington aquifer apply also to the Port Washington confining unit. Earlier correlations such as those by de Laguna and Perlmutter (1949) considered the deposits (included within the confining unit in this report) to be mainly the clay member of the Raritan Formation and some upper Pleistocene deposits. Swarzenski (1963, pls. 4-7) seems to have considered the deposits to consist mainly of the Gardiners Clay. Swarzenski (1963, p. 22) does state, however, that the "top of the Gardiners Clay commonly is recognized with difficulty, particularly where the formation is overlain directly by fossiliferous marine clays of Recent age." He did not, however, indicate the areas where these younger clays occur.

The author believes that the Port Washington confining unit is probably composed of deposits mainly of Pleistocene and Holocene(?) age but that may also locally contain erosional remnants of the clay member of the Raritan Formation, and that these deposits together form a distinct hydrogeologic unit. The fossiliferous zone in the upper part of the confining unit, as shown on the log of well N 6095 in plate 3, section C-C', and plate 4, section E-E', may possibly be the equivalent of the Gardiners Clay that occurs elsewhere on Long Island.

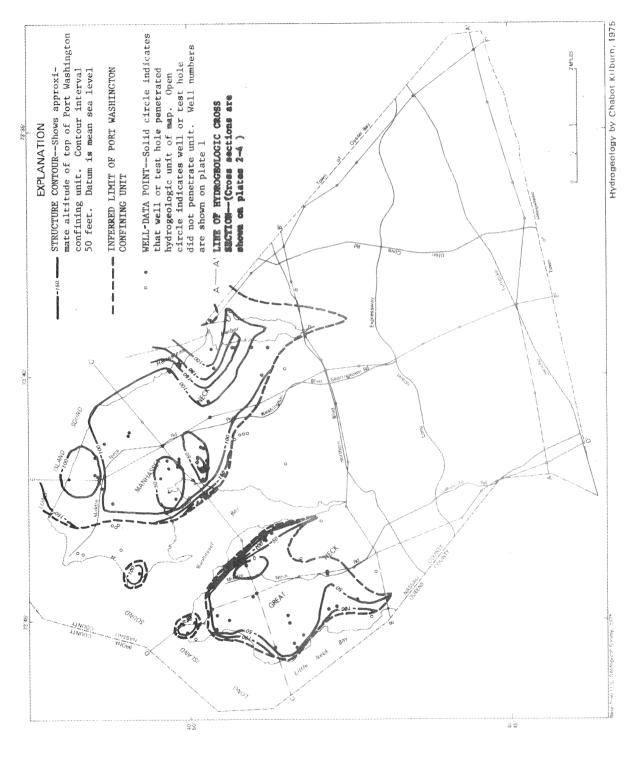


Figure 12. -- Inferred extent, altitude, and configuration of top of Port Washington confining unit.

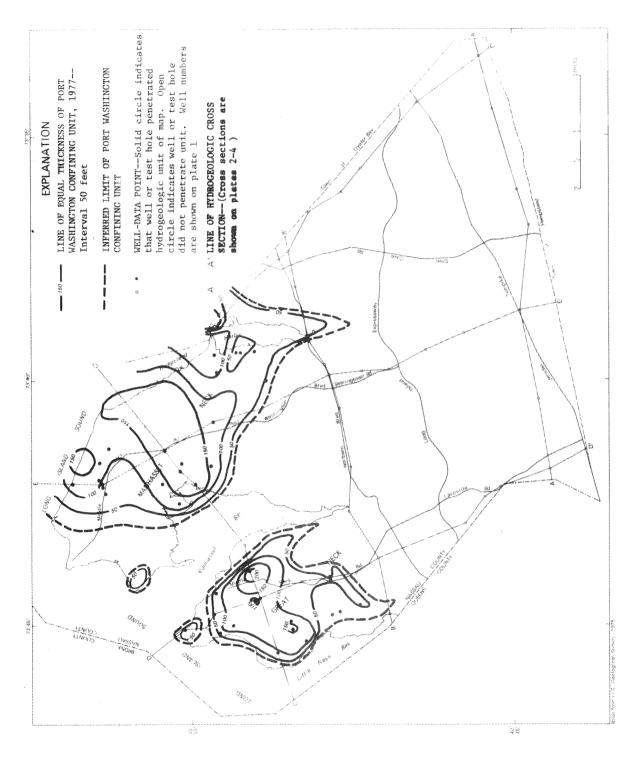


Figure 13. -- Approximate thickness of Port Washington confining unit.

The interpretation and correlation of the Port Washington confining unit and the Port Washington aquifer sequences shown in plate 4, section E-E' on the log of well N 6089, differs from that shown by Swarzenski (1963) in his plate 6. Swarzenski (1963, p. 16) considered the sequence shown as the Port Washington confining unit on the log of well N 6089 (plate 4, section E-E') in this report to be part of a silt and clayey sand facies within the clay member of the Raritan Formation. The correlation has been revised in this report because (1) a distinct lithologic change occurs just north of and along the inferred area of the Pleistocene-Cretaceous contact between wells N 6095 and N 4223 (pl. 4, section E-E'); (2) the sandy facies runs generally east-west along and parallel to the front of the Cretaceous deposits to the south; and (3) a sandy facies of this extent and thickness has not been found elsewhere within the clay member of the Raritan Formation in the north-shore area of Long Island.

The Port Washington confining unit confines the water in the underlying Port Washington aquifer. Swarzenski (1963, p. 23) considered the deposits that form the unit to be variable enough in thickness and lithology to permit local interchange of water with that of the adjacent aquifers. The sand and gravel deposits within the unit are tapped by some wells.

# UPPER GLACIAL AQUIFER

The upper glacial aquifer consists of deposits of late Pleistocene and Holocene age that overlie the Gardiners Clay (de Laguna, 1948, p. 16). The upper glacial aquifer overlies the Magothy aquifer and the Port Washington confining unit and locally abuts against or overlies the Port Washington aquifer. The upper surface of the aquifer and these deposits form the present land surface, except where they are overlain by deposits of Holocene age or by landfill. The extent and relationships of these deposits to the adjacent hydrogeologic units are shown on plates 2 to 4.

The upper Pleistocene deposits are locally covered by a thin layer of Holocene deposits along the shore of Long Island Sound and its bays and along some streams, lakes, and upland marshes. The Holocene deposits are too thin to be differentiated in the sections.

The upper Pleistocene deposits consist of beds of fine to coarse stratified sand and gravel, boulder clay or till consisting of unstratified mixtures of clay and boulders, and some freshwater lake deposits composed of silt and clay (Perlmutter, 1949, p. 24).

The upper Pleistocene deposits in the Town of North Hempstead form two hydrologically significant areas—a northern area of moraine and a southern area of glacial outwash. The approximate boundary between the two areas, shown on plate 1, is taken from the surficial geology maps of Swarzenski (1963, pl. 8) and Isbister (1966, pl. 2).

The outwash area is underlain by stratified deposits of sand and gravel that may locally contain thin clay beds. These deposits have a high permeability and allow precipitation to percolate downward with relative ease to the water table and thence into the underlying aquifers.

The morainal area is underlain both at the surface and at depth by beds of till that can support perched water tables or retard the downward movement of water to the water table.

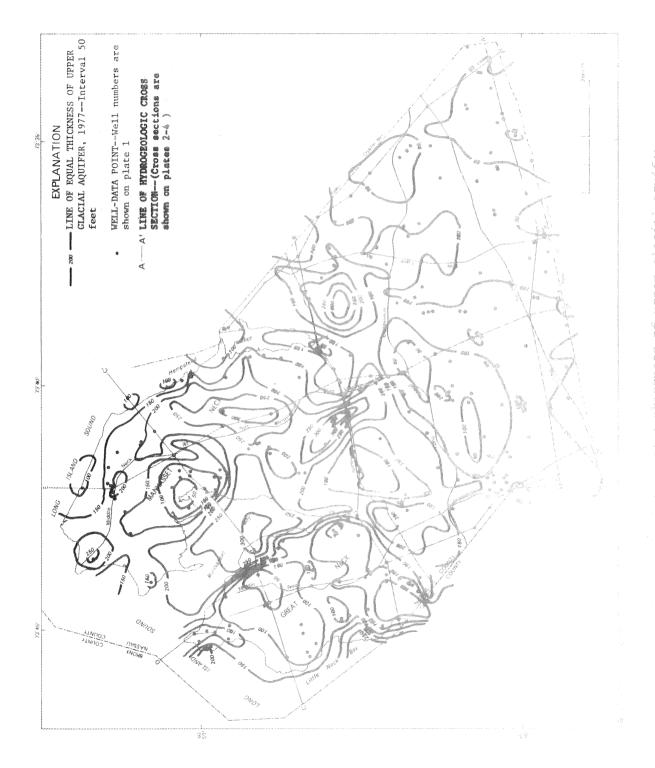
The deposits forming the upper glacial aquifer in the Town of North Hempstead range in thickness from 6 ft to more than 350 ft (fig. 14). This extreme variation is due to the uneven surface upon which the materials were deposited and because the upper surface of the deposits is the present irregular land surface. The deposits in the outwash area range in thickness from 14 ft to about 165 ft.

The upper glacial aquifer, as defined and used by the U.S. Geological Survey on Long Island, includes both the unsaturated and saturated parts of the upper Pleistocene deposits. The estimated saturated thickness of the aquifer in June 1976 is shown in figure 15. The upper surface of the saturated zone is the water table. As can be seen from figure 15, the upper Pleistocene deposits are locally unsaturated; in these areas the water table is in the underlying Magothy aquifer (pls. 2, 3 [section D-D'], 4; figs. 9 and 15).

Buried valleys that cut into the Cretaceous deposits in the sections (p1. 2 [section B-B'], p1. 3 [section D-D'], p1. 4 [section F-F']) and maps (figs. 3, 5, and 7) have been inferred from correlations of the well-log data and from the geologic history of the north-shore area of Long Island. These valleys may be important hydrologically because of their possible higher permeability, which would facilitate the movement of water between aquifers in response to differing hydrostatic heads within the aquifers. All deeper valleys shown on the figures and maps in this report have been previously mapped by Swarzenski (1963). Isbister (1966, p1. 3) and Jensen and Soren (1974, sheet 1) have reported similar buried valleys that have been cut deeply into or through the Cretaceous deposits.

The buried valley beneath Manhasset Bay, inferred from the driller's log of well N 291 (pl. 3, section C-C'), has been cut to at least 195 ft below sea level. The log shows that "quicksand" and very fine white sand were penetrated from 50 to 237 ft below land surface. This sand is considered to be part of the upper Pleistocene deposits that fill the valley. Sandbeds in similar stratigraphic position have been reported from wells N 23, N 216, and N 314 (pl. 1). The stratigraphic horizon occupied by this sand sequence, as shown in plate 3 (section C-C'), is one that was once probably occupied by clay of the Port Washington confining unit before it was removed by erosion. The valley is assumed to extend to bedrock because the underlying unconsolidated deposits would have been eroded with great ease. However, no data to support this assumption are as yet available.

Swarzenski (1963, pl. 3) postulated that other buried valleys had been cut into the Cretaceous deposits. Some of these were not substantiated during the present study. The buried valley on Swarzenski's plate 3, which extends south from the south end of Manhasset Bay, was apparently based on his interpretation and correlation of the log of well N 5710. The recorrelation of this log in the present study with those of nearby wells (pl. 1) suggests that the valley may not exist.



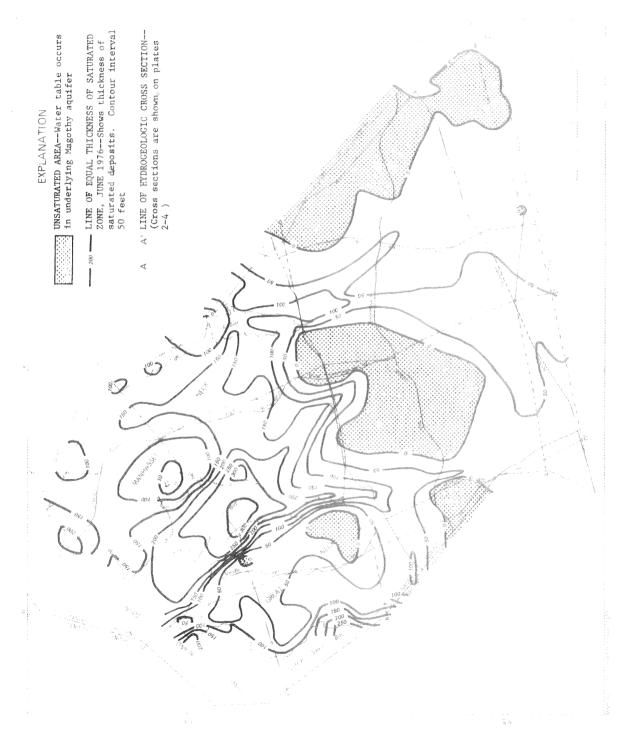


Figure 15.--Approximate thickness of saturated zone in upper glacial aquifer, Town of North Hempstead, June 1976.

Other correlations made by Swarzenski seem to be based in part on the assumption that some of the surficial deposits in parts of Great Neck and Manhasset Neck are of Cretaceous age. Recent studies of the exposures on Great Neck and Manhasset Neck by Sirkin (1968) and Sirkin and Mills (1975) indicate that these deposits are of Pleistocene age. Deposits exposed in the Port Washington sand pits adjacent to the west side of Hempstead Harbor have been shown by Mills and Wells (1974) to be structurally deformed and to consist of intercalated units of Pleistocene and Cretaceous age. The surficial deposits exposed on Great Neck and Manhasset Neck have, therefore, been considered in this study to be of Pleistocene age. Some of the well data used by Swarzenski were recorrelated during this study; the resulting changes are reflected in the maps and sections within this report.

Shallow buried channels that were cut into the top of the Cretaceous deposits by northward flowing streams extend south from the south ends of the buried valleys underlying Manhasset Bay and Hempstead Harbor (fig. 7). The channel extending south from Manhasset Bay seems to have drained most of the southwest corner of the Town of North Hempstead (Lake Success area). Data from wells in the area indicate that the channel did not extend farther to the south than shown in figure 7.

The channel extending south from Hempstead Harbor reaches to and beyond the southern boundary of the Town and bifurcates just north of the southern boundary. The southwest branch extends into Queens County; the east branch extends into the Town of Hempstead for an unknown distance.

The channels and the valleys that were not filled with deposits forming the Port Washington aquifer and confining unit have been filled and buried by upper Pleistocene deposits.

The upper glacial aquifer, which contains the water table in most of the area, is significant because it transmits all recharge to the underlying aquifers. Precipitation filtering downward to the water table is the principal source of ground-water recharge; the other large sources of recharge are septic-tank and cesspool effluent and infiltration from recharge basins.

In years past, the upper glacial aquifer was tapped as a water supply by many public-supply wells. However, since it has become largely polluted from cesspool effluents, fertilizers, and other sources, its use for public-supply purposes has nearly ceased. Wells tapping the aquifer are now used mainly to supply water for domestic use, irrigation, and commercial and industrial purposes.

The sand and gravel deposits in the upper glacial aquifer are highly permeable and yield large amounts of water to properly constructed wells. The yields of large-capacity public-supply wells screened in the aquifer have been reported by well drillers to range from 436 gal/min to 1,410 gal/min. Specific capacities of the wells ranged from 10 to 73 gal/min per foot of drawdown.

Sediments of Holocene (recent) age that have been deposited along beaches and bars, as alluvium along streams, in swamps and bogs, and in

the bottoms of the bays and lakes have not been differentiated from the upper glacial aquifer because they are too thin. These deposits may be hydrologically significant in that they locally retard the downward movement of saltwater from Long Island Sound and its bays into the underlying aquifers. In general, the deposits are not a source of freshwater because they are mostly above the water table or contain brackish or salty water.

#### SUMMARY

The ground-water reservoir underlying the Town of North Hempstead is composed of unconsolidated local deposits of Holocene age, glacial deposits of Pleistocene age, and coastal-plain deposits of continental and marine origin of Late Cretaceous age. The deposits consist of clay, silt, sand, and gravel. Weathered and crystalline bedrock of Lower Paleozoic and(or) Precambrian age underlies the unconsolidated deposits and forms the virtually impermeable base of the ground-water reservoir.

The Upper Cretaceous deposits in the Town of North Hempstead have been subdivided into three hydrogeologic units, which are, from oldest to youngest, the Lloyd aquifer, the Raritan clay, and the Magothy aquifer. These units are present throughout most of the Town and are recognized as distinct hydrogeologic units (figs. 3, 5, and 7). The deposits dip and thicken to the southeast; their maximum thickness in the Town of North Hempstead is about 950 ft.

The Lloyd aquifer (fig. 3) rests upon bedrock and consists of lenticular deposits of clay, silt, sandy clay, sand, and gravel. The top of the aquifer dips southeast from about 155 ft below sea level in Great Neck to more than 650 ft below sea level in the southeast corner of the Town of North Hempstead. The aquifer ranges from 0 to 205 ft in thickness. The average thickness, as determined from drillers' logs of 20 wells that have penetrated the full thickness of the aquifer, is 132 ft.

The Lloyd aquifer in the Town of North Hempstead is tapped by 15 public-supply wells, mainly in the north and westernmost parts of Town. Water in the aquifer is confined beneath the Raritan clay. In the Great Neck and Manhasset Neck areas, the aquifer is probably hydraulically continuous with adjacent hydrogeologic units of Pleistocene or Late Cretaceous and Pleistocene age.

The Raritan clay (fig. 5) is a significant confining unit that consists mainly of clay and silty clay and some sandy clay and sand in the upper part. The clay has a very low hydraulic conductivity but does not prevent movement of water between the overlying Magothy aquifer and the underlying Lloyd aquifer. The clay ranges from 0 to about 195 ft in thickness.

The Magothy aquifer (fig. 7) is the principal aquifer underlying the Town of North Hempstead. It consists mainly of lenticular beds of very fine to medium sand that are interbedded with beds of clay and sandy clay, silt, and some sand and gravel. Most of the clay is in the upper half of the unit. Beds of coarse sand with gravel are found at most, but not all, locations in the lower 100 to 150 ft of the unit. The aquifer reaches maximum thickness in the southeast corner of the Town, where its thickness is about 530 ft.

The large amount of clayey sediments in the upper half of the Magothy aquifer causes the water to become increasingly confined with depth. The hydrogeologic relationships between the Magothy aquifer and the adjacent aquifers of Pleistocene or Late Cretaceous and Pleistocene age (pl. 2, section B-B' and pls. 3 and 4) suggest that the units may be in close hydraulic continuity. Similarly, a high degree of hydraulic continuity probably exists in many areas between the Magothy and the overlying upper glacial aquifer.

The Cretaceous deposits in the north half of Great Neck and Manhasset Neck have been extensively eroded and probably have been removed from some areas. In their place is a thick sequence of deposits of Pleistocene and Holocene(?) age. These deposits and any remaining deposits of Cretaceous age have been subdivided into three hydrogeologic units, which are, from oldest to youngest, the Port Washington aquifer, the Port Washington confining unit, and the upper glacial aquifer. The Port Washington aquifer and Port Washington confining units, first identified and named in this report, are equivalent to the Jameco Gravel and Gardiners Clay, as mapped by Swarzenski (1963). The terms "Port Washington aquifer" and "Port Washington confining unit" are used in this report in preference to the names Jameco Gravel and Gardiners Clay because the latter imply correlations, which are questionable, with deposits of those names elsewhere on Long Island.

The Port Washington aquifer (fig. 10) consists mainly of sand or sand and gravel and varying amounts of interbedded clay, silt, and sandy clay. The deposits either rest upon bedrock or overlap or abut against the adjacent Cretaceous units (pl. 2, section B-B', and pls. 3 and 4). Locally they occur as valley fill in channels cut into the Cretaceous deposits. The deposits are probably thickest in the central parts of Great Neck and Manhasset Neck, where they average well over 100 ft in thickness. The Port Washington aquifer is a major source of freshwater in the Great Neck and Manhasset Neck areas. Water in the aquifer is confined by the overlying Port Washington confining unit. The hydrogeologic relationships between this aquifer and the Lloyd and upper glacial aquifers suggest that the aquifers are in hydraulic continuity.

The Port Washington confining unit (fig. 12) overlies the Port Washington aquifer and is in turn overlain by deposits that form the upper glacial aquifer. The deposits that form the confining unit locally overlap the adjacent Cretaceous units and constitute part of the upper valley fill in channels cut into the Cretaceous units (pl. 2, section B-B', pl. 3, section D-D', and pl. 4). The deposits consist of clay and silt with scattered lenses of sand or sand and gravel. Their maximum thickness is about 190 ft in Manhasset Neck and 234 ft in Great Neck.

The top of the confining unit in much of Great Neck ranges in altitude from 19 ft above sea level to about 50 ft below sea level, whereas in much of Manhasset Neck, the top of the confining unit is 40 ft to 60 ft lower and ranges from 36 ft to about 100 ft below sea level. The top of the unit on Manhasset Neck, however, is normally 50 ft to 100 ft below sea level.

The upper glacial aquifer consists of deposits of late Pleistocene and Holocene age that overlie the Magothy aquifer and the Port Washington confining unit and that locally abut against or overlie the Port Washington aquifer (pls. 2-4). The top of the upper Pleistocene deposits is the present land surface, except where they are locally overlain by thin deposits of Holocene age.

The upper Pleistocene deposits are composed of beds of fine to coarse stratified sand and gravel, boulder clay, or tills, consisting of unstratified mixtures of clay and boulders, and some freshwater lake deposits of silt and clay (Perlmutter, 1949, p. 24). The deposits in the Town of North Hempstead can be divided into two hydrologically significant areas on the basis of general lithologic composition. The southermost part of the Town is underlain by highly permeable glacial outwash consisting of stratified sand and gravel and occasional thin clay beds; the rest of the Town is underlain by glacial moraine that consists of sand and gravel, boulder clay, till, and lake deposits.

The deposits forming the upper glacial aquifer range in thickness from 6 ft to more than 350 ft. The extreme variation in thickness results from the highly eroded surface upon which these materials were deposited and the irregularity of their upper surface, which is the present land surface. The outwash deposits range in thickness from 14 ft to about 165 ft. The estimated thickness of the saturated zone in the aquifer during June 1975 ranged from 0 to about 350 ft.

The upper glacial aquifer is the source of all recharge to the underlying aquifers but is also a source of contamination because it receives large amounts of cesspool effluent and surface pollutants, which percolate down to the water table.

The aquifer was tapped in the past by many public-supply wells. However, since it has become polluted it is tapped only sparsely as a public supply. The aquifer is now tapped mainly by domestic, irrigation, commercial and industrial wells.

#### **SELECTED REFERENCES**

- Burr, W. H., Hering, Rudolph, and Freeman, F. R., 1904, Report of the Commission on Additional Water Supply for the City of New York: New York, Martin B. Brown Co., 980 p.
- Cohen, Philip, Franke, O. L., and Foxworthy, B. L., 1968, An atlas of Long Island's water resources—New York Water Resources Commission Bulletin 62, 117 p.
- Crosby, W. O., 1910, Report on the geological relations of the ground water of Long Island: Board of Water Supply, City of New York, Open-File Report, 64 p.
- de Laguna, Wallace, 1948, Geologic correlation of logs of wells in Kings County, New York: New York State Water Power and Control Commission Bulletin GW-17, 35 p.
- 1949, Geologic history of Long Island, in Suter, Russell, de Laguna, Wallace, and Perlmutter, N. M., 1949, Mapping of geologic formations and aquifers of Long Island, New York: New York State Water Power and Control Commission Bulletin GW-18, p. 25-46.
- de Laguna, Wallace, and Brashears, M. L., Jr., 1948, The configuration of the rock floor in western Long Island, New York: New York State Water Power and Control Commission Bulletin GW-13, 32 p.
- de Laguna, Wallace, and Perlmutter, N. M., 1949, Tables of geologic correlations of well logs in Long Island, in Suter, Russell, de Laguna, Wallace, and Perlmutter, N. M., 1949, Mapping of geologic formations and aquifers of Long Island, New York: New York State Water Power and Control Commission Bulletin GW-18, p. 52-138.
- Fisher, D. W., and others, 1962, Geologic map of New York, Lower Hudson sheet, 1961: New York State Museum & Science Service, Map & Chart Ser., no. 5, 1:25,000.
- Fleming, W. S. S., 1935, Glacial geology of central Long Island: American Journal of Science, ser. 5., v. 30, no. 117, p. 216-238.
- Fuller, M. L., 1914, The geology of Long Island, New York: U.S. Geological Survey Professional Paper 82, 231 p.
- Grim, M. S., Drake, C. L., and Heirtzler, J. R., 1970, Sub-bottom study of Long Island Sound: Geological Society of America Bulletin, v. 81, no. 3, p. 649-666, 12 figs.
- Isbister, John, 1966, Geology and hydrology of northeastern Nassau County, Long Island, New York: U.S. Geological Survey Water-Supply Paper 1825, 89 p.
- Jensen, H. M., and Soren, Julian, 1974, Hydrogeology of Suffolk County, Long Island, New York: U.S. Geological Survey Hydrologic Investigations Atlas HA-501, 2 sheets.

# **REFERENCES** (continued)

- Kimmel, G. E., 1973, Change in potentiometric head in the Lloyd aquifer, Long Island, New York: U.S. Geological Survey Journal of Research, v. 1, no. 3, p. 345-350.
- Koszalka, E. J., 1975, The water table on Long Island, New York in March 1974: Long Island Water Resources Bulletin LIWR 5, 7 p.
- Leggette, R. M., and others, 1938, Records of wells in Nassau County, New York: New York State Water Power and Control Commission Bulletin GW-5, 139 p.
- MacClintock, Paul, and Richards, H. R., 1936, Correlation of late Pleistocene marine and glacial deposits of New Jersey and New York: Geological Society of America Bulletin, v. 47, no. 3, p. 289-338.
- Mills, H. C., and Wells P. D., 1974, Ice-shove deformation and glacial stratigraphy of Port Washington, Long Island, New York: Geological Society of America Bulletin., v. 85, no. 3, p. 357-364.
- New York State Water Power and Control Commission, 1950, Geologic atlas of Long Island: New York State Water Power and Control Commission Bulletin GW-19, copies not available in Albany.
- 1958, Record of wells in Nassau County, New York Supplement 2:
  New York State Water Power and Control Commission Bulletin GW-39, 308 p.
- Perlmutter, N. M., 1949, Geologic correlation of logs of wells in Long Island, <a href="in">in</a> Suter, Russell, de Laguna, Wallace, and Perlmutter, N. M., 1949, Mapping of geologic formations and aquifers of Long Island, New York: New York State Water Power and Control Commission Bulletin GW-18, 212 p.
- Perlmutter, N. M., and Geraghty, J. J., 1963, Geology and ground-water conditions in southern Nassau and southeastern Queens Counties, Long Island, New York: U.S. Geological Survey Water-Supply Paper 1613-A, 205 p.
- Perlmutter, N. M., and Todd, Ruth, 1965, Correlation and Foraminifera of the Monmouth Group (Upper Cretaceous), Long Island, New York: U.S. Geological Survey Professional Paper 483-I, 24 p., 8 pls.
- Roberts, C. M., and Brashears, M. L., Jr., 1946, Records of wells in Nassau County, New York, Supplement 1: New York State Water Power and Control Commission Bulletin GW-10, 191 p.
- Sirkin, L. A., 1968, Geology, geomorphology, and late-glacial environments of western Long Island, New York or Suburban Pleistocene geology:
  Who built a parkway on my bog?, in R. M. Finks (ed.) New York State Geological Association, Guidebook to field excursions, 40th Annual Meeting, Queens College, Flushing, N.Y.: p. 233-253.

# **REFERENCES** (continued)

- Island, New York, and Block Island, Rhode Island: U.S. Geological Survey Journal of Research, v. 2, no. 4, p. 431-440.
- Sirkin, L. A., and Mills, H. E., 1975, Wisconsinan glacial stratigraphy and structure of northwestern Long Island, in M. P. Wolff (ed.), New York State Geological Association, Guidebook to field excursions, 47th Annual Meeting, Hofstra University, Hempstead, N.Y., p. 299-327.
- Soren, Julian, 1971, Ground-water and geohydrologic conditions in Queens County, Long Island, New York: U.S. Geological Survey Water-Supply Paper 2001-A, 39 p.
- Long Island, New York: U.S. Geological Survey Water-Resources Investigation 77-34, 17 p., 2 figs. 2 pls.
- Suter, Russell, de Laguna, Wallace, and Perlmutter, N. M., 1949, Mapping of geologic formations and aquifers of Long Island, New York: New York State Water Power and Control Commission Bulletin GW-18, 212 p.
- Swarzenski, W. V., 1963, Hydrogeology of northwestern Nassau and northeastern Queens County, Long Island, New York: U.S. Geological Survey Water-Supply Paper 1657, 90 p., 13 pl.
- Tagg, A. R., and Uchupi, Elazar, 1967, Subsurface morphology of Long Island Sound, Block Island Sound, Rhode Island Sound, and Buzzards Bay: U.S. Geological Survey Professional Paper 575-C, p. C92-C96.
- Upson, J. E., 1970, The Gardiners Clay of eastern Long Island, New York--a reexamination: U.S. Geological Survey Professional Paper 700-B, p. B157-B160.
- Veatch, A. C., Slichter, C. S., Bowman, Isaiah, Crosby, W. O., and Horton, R. E., 1906, Underground water resources of Long Island, New York: U.S. Geological Survey Professional Paper 44, 385 p.
- Weiss, Lawrence, 1954, Foraminifera and origin of the Gardiners Clay (Pleistocene), eastern Long Island, New York: U.S. Geological Survey Professional Paper 254-G, p. 143-163.
- Woodworth, J. G., 1901, Pleistocene geology of portions of Nassau County and Borough of Queens, New York: New York State Museum Bulletin 48, p. 617-668.

Table 3.--Well-completion Data on Selected Wells and

Test Holes in Town of North Hempstead,

Nassau County, New York

#### EXPLANATION OF COLUMNAR DATA AND ABBREVIATIONS

### Well Number

Well numbers are assigned by the New York State Department of Environmental Conservation. The prefix N designates Nassau County.

#### Owner or Well User

The owner or well user is in most cases the name shown on the completion report that was sent to the New York State Department of Environmental Conservation by the driller. During this study, it was found that many of the wells have changed ownership or user. New owners or well users are listed if known.

The following abbreviations are used in the "owner/user" column:

310 N. BLVD. CORP

310 Northern Boulevard Corp.

AMER. IMP. PROD. ARCO ELEC. CORP ASHER BROS. INC ASSOC ASSOC. FOOD ST American Improved Products Inc.
Arco Electronics Inc.
Asher Brothers Inc.
Associates or association

ASSOC. FOOD ST AUTRONIC PLAS Associated Food Stores Co-Op Inc. Autronic Plastics Inc.

CALD.-MIN. THEA

CC

Calderone-Mineola Theatre Corp. Country club

CHAMINADE H SCH

CIL

Chaminade High School

CON LITHO CORP CONST. UNLIM

Company

CORP CROSSMAN CADIL Consolidated Lithographing Corp. Construction Unlimited Inc.

Corporation

Crossman Cadillac Inc.

EST ET AL Estate(s)
And others

GARD. CTY PK WD

GC

GEON INTERNAT GREAT NECK SD GREAT NECK VIL Garden City Park Water District

Golf Club

Geon International Corp. Great Neck Sewer District Village of Great Neck

HOLY ROOD CTRY

Holy Rood Cemetery

INC

Incorporated

INSUL-CUP Insul-Cup of America

LAB. FURNITURE LEASE PLAN INT

Laboratory Furniture Co., Inc. Lease Plan International

# Owner or Well User (Continued)

MANH.-LAKE WD MANH. STEAM LDY MEADOWBROOK BK MERCHANT MAR AC METRO. S AND G

NASSAU CO DPW

NASSAU ELEC POW N. HEMP. CC

OLD WEST. GARD

PENN STEV. CORP PLANDOME ASSOC PORT WASH. SD PORT WASH. WD PUB. CLEAR. HSE

REAL AND DIVER

SANDS POINT CDS SCH SPERRY GYRO. CO

THEA
THOMSON IND

U.S. GEOL SURV

WD WHEATLEY HLS GC WTR Manhasset-Lakeville Water District Manhasset Steam Laundry Meadowbrook Bank U.S. Merchant Marine Academy Metropolitan Sand and Gravel Co.

Nassau County Department of Public Works Nassau Electric Light and Power Co. North Hempstead Country Club Inc.

Old Westbury Gardens Inc.

Penn Stevedoring Corp.
Plandome Property Association Inc.
Port Washington Sewer District
Port Washington Water District
Publishers Clearing House

Real and Diversified Co. Realty

Sands Point Country Day School School Sperry Gyroscope Co., Inc.

Theater
Thomson Industries Inc.

U.S. Geological Survey

Water district Wheatley Hills Golf Club Water

#### Map Coord

Locations of wells are given by map coordinates, based on a latitude and longitude grid system, to aid the reader in locating the wells shown in plate 1. In this system, 5-minute intervals of latitude are lettered consecutively from south to north, and 5-minute intervals of longitude are numbered consecutively from west to east. The grid coordinates are shown along the margins of plate 1.

#### Year Completed

Year completed refers to the year in which the well was reported to have been completed or accepted by the original well owner. It may not always be the year in which the well was actually drilled, however.

# EXPLANATION OF COLUMNAR DATA AND ABBREVIATIONS (Continued)

# Altitude of Land-Surface Datum (LSD) (feet above mean sea level)

The altitude of land surface at the well was estimated from U.S. Geological Survey  $7\frac{1}{2}$ -minute quadrangle topographic maps. At most observation wells, however, land-surface elevation was estimated from spirit leveling of the altitude of the measuring points of the wells and is probably accurate to the nearest foot.

#### Use of Water

The following abbreviations indicate the primary purpose for which water from the well is used.

ARCD	air conditioning	IRR	irrigation
COM	commerical	OTHR	other
DOM	domestic	P.S.	public supply
INST	institutional	RECH	recharge
IND	industrial	UNSD	unused

#### Use of Well

The following abbreviations indicate the principal use of the well or the purpose for which the well or hole was drilled.

DEST	well or hole destroyed	TEST	test hole
OBS	observation well	UNSD	well unused
RECH	recharge water	WTDR	withdrawal of water

# Depth of Well

The figures give well depth or total depth of the drilled test hole, in feet below land surface.

# Screen Setting and Total Screen Length

The altitudes of the top and bottom of the screened interval are given in feet above or below (-) mean sea level. The total length of screen or perforated pipe in that interval is given in feet. In some wells, screen was set at two or more intervals; in such cases the differences between the altitudes of the two screen settings is different from the total screen length.

#### Diameter of Well

The diameter of the well is the nominal inside diameter of the smallest or innermost casing at land surface, in inches.

# Water Level (feet below land-surface datum)

The water level given is the reported original static water level, in feet above or below land surface, when the well was completed.

## Date of Measurement

The date of water-level measurement is given by month (M), day (D), and year (Y).

# Life Type

The following abbreviations indicate the type of pump or other conveyance used to bring water to the surface.

CENT	centrifugal	TURB	turbine
JET	jet	NONE	no pump in well
SUBM	submersible	OTHR	some other type of lift

## Aquifer Developed

The following abbreviations indicate the hydrogeologic unit that yields water to the well. Where two or more units yield water to the well, the probable principal unit is given.

UPGLAC	Upper glacial aquifer
PTWCU	Port Washington confining unit
PTWAQ	Port Washington aquifer
MAGOTHY	Magothy aquifer
LLOYD	Lloyd aquifer

# Specific Capacity

The value in this column is the number of gallons per minute pumped from the well per foot of drawdown in the well, as reported by drillers.

#### Abbreviations

COORD	coordinates	IN	inches
D	day	LSD	land surface datum
DIAM	diameter	M	month
FT	feet	MEAS	measurement
GPM/FT	gallons per minute	MSL	mean sea level
•	pumped per foot of	Y	year
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Table 3.--Well completion data on selected wells and test holes in Town of North Hempstead, Nassau County, New York

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DATE OF MEAS.	08-12-35			12-30-37 03-26-38 03-11-37
WATER LEVEL (FT BELOW LSD)	9			50 165 61.5
DIAM OF WELL (IN)	128 2 2 36 36 50	2	м м ипич м им киеск	\$ \$C 0 0
TOTAL SCREEN LENGTH (FT)	20			010 000 700 700
© > ≥ .	-391 -337			1138 1288 1376
SCREEN SETTIN (FT ABO OR RELO (-) MSL	-371 T0 -297 T0			-128 T0 -238 T0 -149 T0 -335 T0
DEPTH OF WELL (FT)	405 484 104 60 1159 1164 1108	136 79 122 122 88 52 52 113	880 2013 2014 3010 3010 3010 3010 3010	2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
OF	UNSO WIDR DEST DEST DEST DEST DEST DEST	DEST DEST DEST DEST DEST DEST DEST	DEST DEST DEST DEST DEST DEST DEST DEST	DEST DEST DEST DEST DEST
USE	UNSD UNSD UNSD UNSD UNSD UNSD UNSD	UNSD UNSD UNSD UNSD UNSD UNSD UNSD UNSD	UNSD UNSD UNSD UNSD UNSD UNSD UNSD UNSD	COM COM P.S. INST
ALTITUDE OF LSD (FT AROVE MSL)	11 141 40 20 30 30 43 171		13010 1 1 1 1 1000 1300 1300 1300 1300	~ 4 C C C
YFAR COMP- LFTED	1915			10034
MAP COORD	C C C C C C C C C C C C C C C C C C C	~~~~~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		80000 80000
OWNFR OR WELL USFR	L.I.LIGHTING COLD WESTRINY H.R.GILREDT W.H.SGILREDT W.H.SGILREDT W.H.SGILREDT W.H.SGILREDT W.S.W.F.SCOTT G.R.WILSON NASSAU COUNTY A.KTEFFR	W.J.HAMILTON NFW YORK STATE J.R.HIXON H.LUSTGARTEN NFW YORK STATE GPEAT NFCK SCH H.R.RODTH H.R.RODTH H.B.ANDERSON P.COX	C. VANDERRILT NEW YORK STATE T. E. WERR C. H. MASON DODGE FSTATE G. ZARRISKIE HOWARD GOULD R. C. COTINET J. F. D. LANTER J. A. ALREPTSON H. R. DURYER SAMORTIMER NASSAU FLFC POW	COLONIAL SAND MANH. STFAM LNY MINFOLA ST. IGNATTIS PLANDOMF GC
WFI!	22 22 22 22 22 22 22 22 22 22 22 22 22	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	000000 000000 000000000000000000000000	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

Table 3.--Well completion data on selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

5 1938 5 1938 6 6 1939 6 1939 7 5 1939 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	WTDP 117 WTDP 350 WTDP 350 DEST 400 OBS 364 UNSD 296 UNSD	-32 T0 -37 -198 T0 -238 -195 T0 -235 -336 T0 -352 -259 T0 -301 0 T0 -20	4 10 4 4 1 1 1 2 0 1 1 2 0 1 1 2 0 1	73 00-00-38 40 02-20-39 40 01-25-39 FLOWING 04-21-39 8 07-13-39	NOURS PER
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DEST 249  UNSD 364  UNSD 364  TEST 370  WTDR 314  WTDR 70  RECH 215  DEST 150	336 T0 - 259 T0 - 271 T0 - 0 T0 99 T0	N N N	04-21-39 07-13-39 08-19-39	
00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MTDR 70 RECH 215 DEST 150 DEST 150 DEST 150 DEST 150 DEST 150 DEST 150 DEST 150 DEST 150 DEST 150	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 ~		
	DEST 150 DEST 150 DEST 150 DEST 150 RECH 368		4		
	RECH 36A DEST 84		O 4 4 4		NONE UPGLAC NONE UPGLAC NONE UPGLAC
25 55 55 55 55 55 55 55 55 55 55 55 55 5	UNSD DEST 87 UNSD DEST 90 UNSD DEST 90	-52 TO -62			NONE WAGOTHY NONE UPGLAC NONE UPGLAC NONE UPGLAC NONE UPGLAC
© 0 0 mm	UNSD DEST 90 UNSD DEST 392 UNSD DEST 394 UNSD DEST 240		D & C D CC	~ ~ ~ ~ ~	NONE UPGLAC NONE PTWAG NONE PTWAG NONE PTWAG
C C C	UNSD DEST 350 UNSD DEST 243 UNSD DEST 260 -12' UNSD DEST 150	.29 T0 -143	±4 4 00 00 00 00 4	2 Z Z Z Z	NONE MAGOTHY NONE MAGOTHY NONE WAGOTHY NONE WAGOTHY NONE UPGLAC
2000 X X X X X X X X X X X X X X X X X X	UNSD DEST 150 UNSD DEST 150 UNSD DEST UNSD DEST 150 UNSD DEST 150		यय यय		NONE UPGLAC NONE UPGLAC NONE UPGLAC NONE UPGLAC

SPECIFIC CAPACITY (GPM/FT)							
	UPGLAC UPGLAC UPGLAC UPGLAC UPGLAC UPGLAC UPGLAC	UPGLAC UPGLAC UPGLAC UPGLAC	UPGLAC UPGLAC UPGLAC UPGLAC	UPGLAC UPGLAC UPGLAC UPGLAC UPGLAC	UPGLAC UPGLAC UPGLAC UPGLAC	UPGLAC UPGLAC UPGLAC UPGLAC	UPGLAC UPGLAC UPGLAC UPGLAC
	NOONN NOONN	X X X X X 0 0 0 0 0 0 X X X X M M M M M	X X X X X 0 0 0 0 0 0 X X X X X M M M M M	X X X X X X X X X X X X X X X X X X X	NOON NOON NOON NOON NOON	N N O O N O N O N O N O N O O N O O O N O	2
DATE OF MEAS. (M-D-Y)				00-36-36	03-23-53 10-13-37 03-22-63 10-17-37	09=06=63 05=13=37 11=01=61 11=14=66 06=01=38	07=12=61 03=27=39 07=27=61 03=07=41
WATER LEVEL (FT BELOW LSD)				0.0	130.85 136.47 90.07	1450 1450 1450 1550 1550 1550 1550 1550	5.62 60.00 65.22 37.35
DIAM OF WELL (IN)	विवय च चचचच	चंच चंच	4 440	100 100 100 100 100 100 100 100 100 100	4 0 4 0 0 0 0 0 0		7.7 7.7 7.0 7.0 7.0
TOTAL SCREEN LENGTH (FT)			2	10 4 4 4 4 10 4 4 4 4	m in	mm	କ ଉଦ
				1111 0000	60 (r) em	(C) prod (C) (V)	1 65 1
SCREEN SETTING (FT ABOVE OR BELOW (-) MSL)			126 70	-126 T0 -126 T0 -126 T0	34 10	36 TO 24 TO	-6 TO 73 TO 70 TO 70
0EPT4 0F WELL (FT)	150 150 150 150 150	150 150 150 150	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	CCC CCC CCC CCC CCC CCC CCC CCC CCC CC	00504	00166 00166	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
OF WELL	0EST 0EST 0EST 0EST 0EST 0EST 0EST	DEST DEST DEST DEST	0651 0651 0651	UNSO DEST	085 085 085 065 065	DEST DEST DEST DEST	OBS DEST OBS UNSD DEST
USE	UNNS UNNS UNNS UNNS UNNS UNNS UNNS UNNS	UNSD UNSD UNSD	UNSD UNSD UNSD UNSD	CUNSO CO CUNSO CUN	C C C C C C C C C C C C C C C C C C C	CUNNU	UNSO UNSO UNSO UNSO
ALTITUDE OF LSD (FT AROVE MSL)	ααααα αααα	α α α α α α	« « « « « «	22020	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		
YFAR COMP- LETED			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		20000000000000000000000000000000000000	196611968	64 64 64 64 64 64 64 64 64 64 64 64 64 6
MA COORD	00000 00000 00000	00000 4444	00000 00000	CC0CC	00000	0000E	######################################
a .	20000 00000	20000	**************************************		33333	33333	33333 a a a a a a c c c c c
OWNFR OR	W K K K K K K K K K K K K K K K K K K K	M M M M M M M M M M M M M M M M M M M	MANNHO LAKES MANNHO LAKES DOWNITHERES	WHITNEY WHITNEY ANHINEY ASSAU CO	ASSAU CO ASSAU CO ASSAU CO ASSAU CO ASSAU CO	ASSAU CO ASSAU CO ASSAU CO ASSAU CO ASSAU CO	ASSAU CO ASSAU CO ASSAU CO ASSAU CO ASSAU CO
α : - α :	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	**************************************	0 0 0 0 2		400 400 444	A A A O O O S A A A A A A A A A A A A A
- H - H - H - H - H - H - H - H - H - H	Z Z Z Z Z Z Z Z Z Z	22222	22222	2 2 2 2 2	2 2 2 2 2 2	2 2 2 2 2 2	2 2 2 2 2 2

Table 3.--Well completion data on selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

SPECIFIC CAPACITY (GPM/FT)								
A Q O E	UPGLAC UPGLAC UPGLAC WAGOTHY	MAGOTHY WAGOTHY UPGLAC WAGOTHY	WAGOTHY WAGOTHY UPGLAC UPGLAC	UPGLAC UPGLAC UPGLAC UPGLAC	UPGLAC UPGLAC UPGLAC UPGLAC	UPGLAC UPGLAC UPGLAC UPGLAC	UPGLAC MAGOTHY UPGLAC UPGLAC	MAGOTHY MAGOTHY UPGLAC MAGOTHY
LIFT	22222	N 0 0 N 0 N 0 N 0 N 0 N 0 N 0 N 0 N 0 N	X X X X X X X X X X X X X X X X X X X	NON	N N N N N N N N N N N N N N N N N N N	X X X X X X X X X X X X X X X X X X X	N N N N N N N N N N N N N N N N N N N	X X X X X 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
DATE OF MEAS. (M-D-Y)	10-04-61 08-13-64 03-16-76 03-07-40	05-20-40 12-07-38 05-15-40 10-06-61	10-06-65 02-07-69 12-01-59 07-22-65 02-16-38	07-14-64 10-21-37 03-25-65 11-08-37	02-01-67 08-10-37 09-19-55 04-02-65	08-05-37 06-02-55 07-16-64 08-03-37 11-16-66	07-10-40 03-14-41 06-10-40 06-07-38	09-01-37 06-17-58 08-22-40 01-12-37 05-18-65
WATER LEVEL (FT BELOW LSD)		111.10 54.18 72.90 61.62	74.49 85.00 51.20 50.44 32.81	143 175 185 185 185 185 185 185 185 185 185 18	90°73 56°06 51°77 71°54	60 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	112.71 186.01 79.21 83.65	15.22 15.68 96.60 42.15 42.15
DIAM OF WELL (TN)	2.50 1.25 4.25 2.50	2.50 1.05 2.50 2.50	 	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	~		0.44 wind 0.00 0.00 0.00	
TOTAL SCREEN LENGTH (FT)	വരിവനം	ഥന	നന ന	m m	N N N	m m		m m
l	331 36 16 16 16 16	4 C	4 B B	E E	ର ବ୍ୟ ବ ମମ୍ବ	e e		ر 4 ر م
SCREEN SETTING (FT ABOVE OR BFLOW (-) MSL)	37 T0 39 T0 71 T0 47 T0 45 T0	54 TO 55 TO	43 T0 35 T0 42 T0	36 70	0 0 1 4 8 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	58 8 58 TO 0 TO		58 70
DEPTH OF WELL (FT)	1 1 2 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	V & & & & V	808F4	8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1000	0 0 0 0 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4		W W A & L
OF WELL		DEST DEST DEST DEST	08S 08S 08S 08S	0885 0885 0885 0885	000000 000000 0000111	00000	0888 0888 0888 0888	7EST 08S 0EST 08S
USE		UNSD UNSD UNSD UNSD UNSD	UNNS UNNS UNNS UNNS UNNS UNNS UNNS UNNS	UNSO UNSO UNSO UNSO	C C C C C C C C C C C C C C C C C C C	CCNNO	C C S N U C C S N U C C S N U C C S N U	UNSO UNSO UNSO UNSO
ALTITUDE OF LSD (FT AROVE MSL)		179	2 C C C C C C C C C C C C C C C C C C C	0 L R R &		88444 22000 mmmm		80867 80867
YFAR COMP- LETED	1961 1964 1976 1939	1938 1940 1938 1940 1961	1965 1969 1938 1965	1964 1937 1965 1937	1995 1995 1965 1965	10000 10000 10000 10000 10000	00000000000000000000000000000000000000	1937 1940 1940 1955
MAP		C C C C C C C C C C C C C C C C C C C	00000 00000000000000000000000000000000	00000 00000	00000 90000	CD55D	0 6 0 0 0	99919
0.8 0.F.8	2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	3 3 3 3 3 0 0 0 0 0 C C C C C	2 2 2 2 3 2 2 3 3 3 3	3 3 3 3 3 0 0 0 0 0 C C C C C	3 3 3 3 3 a a a a a c c c c c	33333		33333
NWNFR OR WELL USFF	A CO	00000		88888	55555	A U CO O O O O O O O O O O O O O O O O O	000000000000000000000000000000000000000	AU CO AU CO AU CO
C 3	NASSAU NASSAU NASSAU NASSAU	NASSAU NASSAU NASSAU NASSAU	NASSAU NASSAU NASSAU NASSAU	NASSAU NASSAU NASSAU NASSAU	NASSAU NASSAU NASSAU NASSAU NASSAU	NASSAN NASSAN NASSAU NASSAU	NASSAU NASSAU NASSAU NASSAU	NASSAU NASSAU NASSAU NASSAU
WFT 1	~~~~	N N N N S S S S S S S S S S S S S S S S	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X		Popo Por Company pro-	ZZZZZ   m   m   m   m   m   m   m   m   m   m	2

AGUIFER SPECTF DEVEL- CAPACT OPED (GPM/F	UPG UPG LLC MAG	B LLOYD 14 B WAGOTHY 22 B WAGOTHY 22 E LLOYO 26	MAGOTHY 11 UPGLAC UPGLAC UPGLAC	UPGLAC UPGLAC UPGLAC UPGLAC UPGLAC PTWCU UPGLAC LLOYD	UPGLAC UPGLAC UPGLAC UPGLAC UPGLAC UPGLAC UPGLAC	LLOYD 20 UPGLAC WAGOTHY 33	3 H C C
MEAS. LIFT	NONE 04-23-40 NONE 04-24-40 TURB 05-06-40 TURR	17-26-40 TURB 13-00-28 TURB 14-18-40 TURB NONE 12-06-41 TURB	NONE 3-17-40 TURB NONE 2-06-38 NONE 4-26-63 NONE	0-11-63 NONE 9-24-65 NONE 9-06-44 NONE 9-26-44 NONE 1-103-45 NONE 1-16-45 NONE 1-16-45 NONE 1-16-45 NONE 1-16-45 NONE	7-19-40 TURB 28-51 NONE 25-63 NONE 06-66 NONE NONE	31-40	NONE VEVILATIONS
MATER LEVEL DA (FT RELOW M	34.48 04 104 04 92 05	6 07- 89.5 03- 68 04- 157 02-	113°3 03- 32.85 12- 40.40 04-	43.95 32.95 32.95 32.95 32.35 10.63 11.17 FLOWING 111-1	33.55 33.55 38.57 57.07 69.24 69.24	74 10- 90.4 08- 41. 02-	75 02
DIAM OF WFLL (IN)	1.50 1.25 8	20 18 24	20 20 20 20 20 20 20 20 20 20 20 20 20 2	11.02.03 11.02.03 10.02.03 10.03	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	02 4 5	cc
TOTAL SCREEN LENGTH (FT)	25	50 111 90	33	വഗനനന വഗ <b>നന</b> ഗ	Barel ferrel	30	c
	-296 -24	1321 1200 199	-140 -36	1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	© P- 8	129	125
SCREEN SETTING (FT ABOVE OP BFLOW (+) MSL)	-271 TO 45 TO	-271 T0 -140 T0 -88 T0	-120 TO -17 TO 55 TO	359 TO 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-67 70	-390 TO -21 TO -99 TO	1115 TO
DEPTH OF WELL (FT)	44 50 138 385 785	343 195 770 746	250 210 24 53	4 L L O W 4 L O L O C C C C C C C C C C C C C C C C	cwann nem caecu map	105 105 237	٠ ٨
OF WELL	DEST DEST WIDR DEST	WIDS WIDS TEST WIDS	WIDR DEST DEST DEST	DEST DEST DEST DEST DEST	WITH DEST DEST OBST OBST DEST OBST OBST OBST OBST OBST OBST OBST OB	EE SY	j por
USE	UNSD UNSD ARCD UNSD UNSD	P.S. IRR ARCD UNSN	UNSD UNSD UNSD UNSD	UNNSD CRNSD	2 C C C C C C C C C C C C C C C C C C C	UNS D	ARCD
ALTITUDE OF LSD (FT AROVE MSL)		15 165 96 771	110 100 100 100 100				เก
VFAR COMP- LFTED	1940 1940 1940 1940	1940 1940 1940 1941	1940 1932 1937 1938	000000 00000 000000 00000 000444	0 000 000 0 000 000 0 1000 000 0 1000 000	44 44	9
MAP COORD	00000 00000	CCCCC WWWWW	00000 000000		80000 BBB 80060 005	nn en	ı,
OWNFR OR	NASSAU CO DDW NASSAU CO DDW FOUPTOWN RFALTY J.G.SCHIMACHED CITIZENS WIR CO	CTTTZENS WTR CO LINKS GOLF CLUB SKOURAS CORP MANHLAKF, WO MANHLAKF, WO	MESTBUDY WO ALEN OAK GC NASSAU CO DDW NASSAU CO DDW NASSAU CO DDW	0.0000000000000000000000000000000000000	200 DEE CO DEE CO DEE CO DE CO	T	ROLLER PFALTY
- X   - X   - X   - X	256 20 10 10 10 10 10 10 10 10 10 10 10 10 10	2 2 2 2 2 Z	2 X X X X Q C E E E E E E E E E E E E E E E E E E	44444 44440 444444 44440 444444 44440 444444 44444	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	44 44 40 44 40 44	1686

Table 3.--Well completion data on selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

WFI L	NWNFP OR WELL USFR	MAP COORD	YFAR COMP- LETED	ALTITUDE OF LSD (FT AROVE MSL)	USE	OF WELL	DEPTH OF WELL (FT)	SCREEN SETTING (FT ABOV OR RFLOW (-) MSL)	1 8	TOTAL SCREEN LENGTH (FT)	DIAM OF WELL (IN)	WATER LFVEL (FT RELOW LSD)	DATE OF MEAS.	H H H H H H H H H H H H H H H H H H H	AOUTER DEVEL- OPFO	SPECIFIC CAPACITY (GPM/FT)
	E COCO	ហេដ	194	101	CNS	TEST	025	000	0	ú	o r	r C	13-70-11	NON	2	:
Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	200	0 <b>1</b> 0	1941	101	UNSD	TEST	E. E. E.				C :	701		NON I		1
	DORT WASH.		1941	101 68	001	2 C F 3	484 787	-324 T0 -14 T0	0 -374	50 51	œ 9	53.02	11-27-41	1049	UPGLAC	4
N 1771	STRATHWORE RLTY	C C	1941	712	RECH	RECH	370	-128 TO	0 = 148		8 0			NO N N N C N N C	MAGOTHY HPGI AC	
N N N N N N N N N N N N N N N N N N N	STRATHMORF MANHLAKF.		1943	225	COM	WIDE	323			200	2	160	03-00-43	SUBM	MAGOTHY	
-	MANH LAKE.	0	1942	132	o. S.	MIDR	- F07	-509 TO	0 -559	20	20	128	09-08-42	TURR	٦٦٥٥	1.8
1 2000	SPERRY GYRO.	0	1942	119	ARCD	WTDA	25.6 32.6	-101 TO	0 -131	30	20	60 8	03-14-42	TURB	MAGOTHY	30
χα xα	SPERRY GYRO.		1942	117	UNSU	TEST	2 8 6 1				J (	- 6		N N N N N N N N N N N N N N N N N N N		, , ,
gazan ' gazan	SPERRY		1942	200	VINSD	RECH	367	47 T0 -153 T0	7 -167	0 4 0 4	12	28	06=03=42	N O N	MAGOTHY	ø V
gam	SPERRY GYRO, CO	C	1942	122	RECH	RECH	270	-88 TO	38	N 0	N	74	07-07-42	NONE	MAGOTHY	47
, ,	GREAT NFCK VI	C	1948	*	OSNO	UNSD	119					17.5	11-26-47	TURB	MAGOTHY	~ ;
Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ	SPERRY GYPO. CO	د د د د	1942	e c	UNSO	NECH	131	01 16-		20	~ «	Z.	24-52-60		MAGOTHY	n n
- par-	L. I.LIGHTING	_		C	UNNO	DEST	40				9			NONE	UPGLAC	
, 600-	L.I.LIGHTING	0		10	UNSD	DEST	377				60			NO N	LLOYD	
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	L.T.LIGHTING CO	9 9 9		e e	CNSO	DEST	140				ଏ ଏ			NON NON NON	UPGLAC	0.
an grow	SPERRY GYRO.	0	1942	17.4	ARCD	acre acre	- α - σ	42 TO	0 27	5	e 60	ଧୀ ଏହ	10-14-42		UPGLAC	0
gene			1011	50	s° S.	WIDR	260				ØD			Q I	MAGOTHY	
guns .	NY 1200		1011	0	ů.	COLM	260				OC :			OTHE	MAGOTHY	
gua- é	C N N 1500		[6]	c c	ທີ່ ດີດ	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 0 0				16 C				MAGOTHY	
N 1874	ROSLYN	9	1001	. 0.	. 0	ACT B	760				(C)			OTHR	MAGOTHY	
1			1925	C	° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °	0 L L M	560				© ~			α E C	MAGOTHY	
Œ	UM NATSUB		1930	0	ູ່ ດ.	a C C C M	260				0			2	MAGOTHY	
OX.	UM NA 150d	G C	1930	20	°S°	MIDD	u .				ស្ត	FLOWING	00-00-30	O THE	1040	
α	CITIZENS WTR	C	1906	LE (	GSNO GSNO GSNO GSNO GSNO GSNO GSNO GSNO	DEST	466				ø v			NO NO NO	MAGOTHY	
α. α.	œ i	C	1906	ľ i	C C C	0257	C 4				ρ,			J LI		
α	CITIZENS WTR CO	C	1906	U para	C S S S	0E51	024				٥			2		
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	CITIZENS WIR	C	1906	ll prod	CRSNO	DEST	163				9			NON	MAGOTHY	
α	CITIZENS	C	1906	5	UNSD	į	331				\$0	٠		NON P	1,040	
α	œ 0	c	1906	C L	CNNO	DEST	C 11 C				o			200	MAGOTHY	
Z Z Z Z Z Z Z Z Z Z	r a		1906	- C	UNSD	DEST	440				ø			NON	LLOYD	
-																

Table 3.--Well completion data on selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

SPECIFIC CAPACITY (GPM/FT)		4	4 5 K	5. 45	35 135	85	66	01 د
AQUIFER DEVEL- OPED		UPGLAC UPGLAC UPGLAC MAGNTHY	LLOYD UPGLAC MAGOTHY	UPGLAC UPGLAC WAGOTHY	MAGOTHY LLOYD WAGOTHY WAGOTHY	WAGOTHY UPGLAC UPGLAC	МАGOTHY	LLOYD MAGOTHY MAGOTHY UPGLAC
LIFT		NONE NONE TURB	NONE TURB TURB	TURB NONE TURB	TURB NONE TURB	NONE TURB JETT	NONE NONE TURB	TURB NONE TURB NONE
DATE OF MEAS. (M-D-Y)	03-28-46	03-05-47	01-20-47 11-26-46 07-22-47	07-23-47	10-09-48 08-30-48 08-11-48	03-22-48 07-00-48 04-00-48	19-16-48	08-11-48 08-00-48 10-19-48 09-06-51 01-20-49
WATER LEVEL (FT BELOW LSD)	19	S 7.	4 4 0 W	4.4 4.4 4.0	15 21 63 53	4 9 9 4 4 6 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	113.7	99 81.5 16.5 14.6
DIAM OF WELL (IN)	00000	6 10 12	20 8 12	9 8 8 2 8 2	86 40	₩ ₩ ₩ ₩	prod.	9 8 0 0 0
TOTAL SCREEN LENGTH (FT)	10	30	50 21 45	39	32 34 52 52	10 10 vo	00	4 - E 4 - O 8 C - O 8
	-121	4181	-239 -450	-102 24 -277 -42	-203 -203	00 C S S S S S S S S S S S S S S S S S S	8 12.	-686 -286 -288 -33
SCREEN SETTING (FT ABOVE OR BFLOW (-) MSL)	-112 TO -89 TO	-166 70°	-189 TO 36 TO -405 TO	-98 T0 44 T0 -238 T0 18 T0	-409 T0 -163 T0 2 T0	-263 T0 43 T0 -48 T0	-15 10	37 TO 7 TO 17 TO 49 TO
DEPTH OF WELL (FT)	201	239 345	602 393 292 110 570	2 4 4 8 8 3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1044 1044 1044 1044 1044	0 0 0 0 E E E E E E E E E E E E E E E E	25 50 70 70 87 8	805 127 150 58
OF WELL	TEST UNSD DEST DEST DEST	DEST DEST WIDR WIDR	DEST TEST WTOR WTOR UNSD	OBS WTDR TEST WTDR RECH	UNSD ORS TEST WTDR UNSD	TEST WTDR DEST	TEST TEST TEST TEST	WTDR DEST UNSD DEST
USE	UNSD UNSD UNSD UNSD UNSD	UNSD UNSD UNSD IRR ARCD	UNSD UNSD P.S. ARCD UNSD	UNSD UNSD P.S.	UNSD UNSD UNSD UNSD UNSD	UNSD UNSD UNSD UNSD	UNSD UNSD UNSD IRR UNSD	P.S. UNSD UNSD UNSD
ALTITUDE OF LSD (FT AROVE MSL)	158 102 60 60	666 6 8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	115 47 47 125 115	110 161 161 214	9 1 1 3 5 6 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	nd bed bed bed and 7000 to 700	2 1 4 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4 1 6 6 6 6 7 11
VF4R COMP- LETED	1946	1947	1946 1946 1947 1946 1947	1947 1947 1947 1948	1948 1948 1947 1948	1947 1948 1949 1948	19443 19443 1948	1948 1948 1948 1951
MAP COORD	00000		0 0 0 4 4 C C C C C C C C C C C C C C C	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	C C C C C C C C C C C C C C C C C C C	00000 0000 0000 0000	CCCCC
OWNFR OP	ASH. WI MESH. WI MEADOW MEADOW	FRESH MEADOW CC FRESH MEADOW CC FRESH MEADOW CC FRESH MEADOW CC	WESTBURY WD CITIZENS WIR CO CITIZENS WIR CO PAERDEGAT CORP WESTBURY WD	NASSAU CO DPW CALDMIN. THFA ROSLYN WD ROSLYN WD ROSLYN WD	M.MAGENHEIMFR L.I.CLIGHTING CO WILLISTON PARK WILLISTON PARK M.MAGENHETMFR	WESTRURY WN GARD, CTY OK WD GARD, CTY PK WD RLUM ESTATE T.M.FRASFR	NEW YORK STATE NEW YORK STATE NEW YORK STATE GLEN OAKS CC WESTBURY WD	WESTRURY WD F.SCHUMACHER U.S.PRINTING U.S.PRINTING U.S.PRINTING
NIMPE NIMPER		N 2 130 N 2 131 N 2 131 N 2 159	N N 1000 N N	N 2269 N 23999 N 2400 N 2400	N N N N V V V V V V V V V V V V V V V V	X	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

SPECIFIC	CAPACITY (GPW/FT)		Æ		76	30		15					c	2) 2) c	с		٧	С		CΚ				Ø	7.	ę s	าเก		14	26	;			6	v r		CC (C)	f.
AGULFER	DEVFL- JPEn			DIMCO	× 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			MAGOTHY		77040			VI TOUR	1 0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 0 0 0	3	) H	##G0141	IPG: AC	UPGI AC	UPGLAC	40	UMBLAC		78 189	WAGOTHY	0	UPGLAC	i	MAGOIMY	WAGOTHY	UPGLAC		MAGOTHY	UPGLAC	UPGLAC		MAGOTHY	MAGOTHY UPGLAC
	LIFT TYPE			ENON I	102	NONE	UNCN	TURB	NON	NONE		NON P	10017	C NO.	NONE	in Cha	7118B	NONF			L		1202			a			NON	TURR			an	TURB (	TURB		TURB	
	MEAS.		99-00-60	06-22-48	09-07-48	0-12-4		09-17-71	•	03-22-49			ç	105	3		05-15-50	03-00-20	02-00-50	04-20-50	07=21=E0	3		08-16-50	05-20-50	07-20-50	04-09-51		040901	06-01-51			provide	10-00-01	14-00-51		08-26-52	
WATER	(FT BELOW			10.68		20		39,3	ć	20 VI			4	. 0	i I			7.6	ING	37	7 7 0	6  -		0	30		9.0	,		ın.	156 (		23	21	۸.			69
1	(TN)		• •	α	80	18		16		o			80	o cc			12	্ধ	4	α	4	r		20	12		0	c	C C	Œ.	9		10	0.1	Ş		Œ	10
TOTAL	(FT)		20	4	50	50		20	u	n			4.0	12		œ	0.4	14	<b>8</b> 0	54	40	)		30	98	50	50	<	> t	0.4	ហ	(	22	21	10		0 *	0 4
L .			-88	4	-236	-232		-416	0000	500			-357	-153		7.85	-340	~	44-	157	c		4	6[[-	00	-157	38	0	r	-32R	4		20	33	-26		0 1 2	-209
SCREEN SETTING (FT ABOV	: 7		-68 TO	01 011-	-186 TO	-182 TO		-366 TO	733 TO	2			7 TO	1 10		-58 TO				-33 TO	6 70			10		10		000		.288 TO .	9 10			54 70	-16 TO		0	-3 70
DEPT4	(FT)		179	417	333	332	551	513	4 4	6.25	7.2	600	88		401	500	129	50	ů,	165	100	404	384	326	60		137	477. 7.174.	7-4	( <sub>chu</sub>	C. C.	0		F-	4.6		r i	4. r. s.
0.5	WELL		OSNO	TEST	#TDB	DEST	TEST	MTDR	080	TEST	TEST	LEST	MIDA	DEST	TEST	DEST	MTDR	DEST	MIDD	MIDR	ACT.	TEST	TEST	MIDR	RECH	act.	CSNO	127	EST	WIDE	UNAD	- 0 0 0 1 1 1	* 1	G C P	UNSD			UNSD
USF			C CONT	UNSD	°2°	UNSD	UNSD	P.S.	CONS	CNNO	UNSD	UNSD			UNSD					AACD	D0M	UNSU	pm		sq-			CS V	G.		UNSD			c Z				S C C C C C C C C C C C C C C C C C C C
ALTITUNE OF LSD	3 I	ć	40	ر 0 د	66	96	94	46	יי פיפ	78	16	306	106	ር C	124	124	124	r.	<u>د</u>	106	100	64	201	201	105	R.	00 1	5 K	101	P (	192	- 1-	1 0 0	IDE	0	140	2 -	4 C
YFAR COMP-	LETED	u v	1968	1948		1948	1971	1971	1947	1949	1949	4	1949	40	1949	4	9	1950	9	1950	LC.	1950	0	1950	D U	Q.	1001	ים מיני	1951	O	1001 0000 0000	. 0	1000	J.	1951	1951	1707	1951
≱ Q	COORD			ي د				ю и С					9 0			5		9 0					in.				נטו		S 2		יני ת יני ת							5 <b>C</b>
OWNFR OR	WELL USFR	PRINTING	NASCAU CO DPW	CARLE PLACF WO	CARLE PLACE WD	H ACF	CARLE PLACE WD	NASSAII CO DEM	NASSAU CO DPW	M.MAGENHFTMED	M. MAGENHETWER	MINFOLA		A	CITIZENS WIR CO	CITIZENS WIR CO	CITIZENS WIR CO	DENN STEV. CODD	١	AT LEGET LIFE	G.SCHINDLFR	PLANDOWF	MANH LAKE . WD	MANH LAKE. WD	WESTRURY THEA	PL ANDOMF	RING REALTY	OT Y	CTY DK	GABD, CTY PK WD	ASSOC. FOOD ST	DOCC CHELL NOC	14410		c	ALBERTSON WD		
W FI	NIJMRFD			N 2747			2748	2 Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	2749	3153		N 3]25	Σ : Ω :			N 3443			44		3493	1621	で (で (で)	L (	ال الا		2 Z Z		G,	3673	N N N N N N N N N N N N N N N N N N N	3699	040	00/5	~ (	36.46	2723	3739

Table 3.--Well completion data on selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

SPECIFIC CAPACITY (GPM/FT)	33.2	۰.	- 1	m			60	7	្រ	10	000	n.	r. (	ы с ы. 4	đ Ti			6	m :	)     	C III	•	58	,	<b>⊣α</b>	8			`	î	0.	7	ć	80 80	7.3	n 8
AQUTEER DEVEL- OPED	UPGLAC	MAGOTHY	UPGLAC				WAGOTHY			UPGLAC		T ( ) ( ) ( )		MAGOTHY			100		UPGLAC			) *	MAGOTHY		LEGY O				UPGLAC					UPGLAC	UPGLAC	
LIFT	TURA	TURB	NON	TURB	NONE	NONE	TURA		SUB	70,7		2		TURB		1	5	NON	TURA	SC CE	r con		TURA	N C C C		TUR		SURM	NON C	1100		r 2 2	NONE	N C N		TUR
DATE OF MEAS. (M-D-Y)	06-20-51	-11-5	10-01-51	9-21-5	02-00-52		25-60-90	04-30-52	04-30-52	11-15-52	01-22-10	03*19*33	04-27-53	-01	08-05-54		001		3-27-5	08-10-53	ពម	0	08-12-54	ŭ	40167111	07-29-54		04-11-54	05-00-54	270000				06-08-54	01-06-54	7
WATER LEVEL (FT BELOW LSD)	101	53	38°8	: 09	9		65	70.6	74.6	41.5	33	36	66	\$ 1	3.1	# C	26		172	96.1	7.5	55.00	126		d+ 0	5.5	,	146.7	143	r	ກໍ່ຄ			29.	, .C	06
DIAM OF WELL (IN)	8 12	œ	αΨ		: <b>c</b> c	α	20	9	9	9 ;	138	xc	<b>o</b> c	20	e c	10	٥		12	vc (	02	c	OC.		01	0 00		\$0	9	s.	d i	CC:		16	00	00
TOTAL SCREEN LENGTH (FT)	10 30	77	~ ~	) pro-	23	50	40	m	m	p=4 (	40	02	19	30	50 4	) \ \$ •	10		53	ហ	50	<b>5</b>	50	,	9 -	209	)	10	p-4 (	0,	10	20		43	23	35
1	19	14-	6 6	001-		-289	-120	34	34	-19	4354	161-	-40	-125	249	6111	SC N		-138	44	N 6	-104	016-		336	-298	) k	-21	സ	-106	21-	-117		-145	0	-172
SCREEN SETTING (FT ABOVE OR RFLOW (-) MSL)	0T 0T	C	C F	<u> </u>	) C	10	10	C F	10	12	0	10	0	10	0 4	2 1	0		10	C	0	9	10		120	2 6	2					<u>د</u>		٢	4	
N. F. S	29 -90	-26	30	0	182	-269	-80	37	37	8	-314	-177	-21	-95	1199		4		-85	4 1	-73	<del>ر</del> و ۱	-220		-320	1238	)	-11	47	96-	1	-67		-70	0.4	-137
DEPTH OF WELL (FT)	72	563	[0]	. u	187	402	250	44	101	75	467	261	180	260	360	ر د	104	510	330	125	260	747	490	475	396	\$ C	7	210	r	25	136	145	~	0	2 0	301
OF WELL	W T D P	MTDA	UNSD	0 0 1 3	E CH	RECH	WTOR	ACT.	WIDR	¥ TDR	A C	DEST	MIDA	WIDR	W TOR	T I	α - - 3	TEST	WIDR	WIDE	M TO R	CSNO	αCT ≥	TEST	088			OSNO	UNSD	CSNO	CSNO CNO	ATOTA B	TEST	ACT M	757	ETD'S
USF WATFR	DOW I RR	CNI	05NU		RECH	RECH	0. v. q	MOO	DOM	D0M	ຶ ດີ	ONSD	COM	CNI	P.S.	E CHI	COM	USNO	P. S.	₩ 00	s, S	CSNO	P S.S.	UNSD	CNSD	0 0 0	e e	USNO	CSNO	CVVO	z	s. o.	UNSD	o.		o v
ALTITHDE OF LSD (FT ARQVE MSL)	91	211	011	ວ <b>ນ</b>	י ת מ	108	134	131	135	ንና	108	n C	137	130	106	120	132	192	192	169	132	α C	رم بر	7.7	77	200	- -	9	1 R.S.	114	70	α	σ	α c	4 6	124
YFAR COMP- LETED	1951	1951	1951	1051	1952	1953	1952 1952	1952	1952	1952	1953	1953	1953	1954	1954	1954	1954	1953	1954	1953	1953	1953	1954	1953	1954	1954	1404	1954	1954	1953	1953	1954	1953	1954	1953	1967
MAP COORD	20		u د			, C I				4				C	9 (	C	0			9 0						C C				7		۵		w	0	5 C
G	A. PRAVER	H. RUBINSTFIN	LAB. FURNITURE	•	1 4 1 COOR	FOURTOWN REALTY	MANH LAKE - WD	THE COUNTY OF THE	F.T.PRATT	E. A. KAHN FOT	MINFOLA	COLONTAL SAND	SETMAN RFALTY	SPERRY GYRN, CO	CAPLE PLACE WD	SPERRY GYRO, CO	LFUTTT AND SONS	PORT WASH, WD	PORT WASH, MA	S.KIITTNER	MANH LAKE . WD	PORT WASH, SD	CM NA ISUA	U.S. GFOL SURV	U.S. GFOL SURV	COUNTRY WOOD	AL MAKE STAN SEE	W.I. BIACK INC	W. J. BLACK. INC	JARCO CORP	LAGREGA RFALTY	CITIZENS WTR CO	SANDS POTNT		0 L	JAMAICA WTR. CO
g	N 3740 N 3740		N 3758			N 3888	3905 N			N 4016					N 4206		N 4215			02C7 N		N 4744				000	N 4 37	0884 N		N 4382			0857 N	4		N 4340

SPECIFIC CAPACITY (GPM/FT)			ø	4	E	σ		p==4	i	ı,	`	2					Ea.J		1	σς n.		r\cdot	۴-	50		-4		С.			31			0.4
AQUIFER I DEVEL- E OPED	1			3	or n	B UPGLAC	a i		M UPGLAC		MAGG	O TIME	1501							B WAGOTHY	ن ن	œ	er		E UPGLACE UPGLACE	W UPGIAC		E UPGLAC	ža!	ta i	WAGOTHY	C A O 4 1		MAGOTHY
LIFT	NON	NON	Z	SUR	401	100	2			NON		TIR				NON	100	Z	NON	00 L	2	TURR	TUR	TUR	N O N	800	NON	NON	Z	NON NON	TURA	N O N	NON	TURR
DATE OF MEAS. (M-D-Y)	07-16-54	05-00-54	06-26-54	06-17-54	12-14-55	08-25-54		2	09-00-54	0	- - -	09-28-54	11-16-54	09-00-54	09-00-54	75-00-60	11-10-54		9	04-06-55		05-03-55	03-03-55	06-14-56	04-00-55	04-10-55	,	05-04-55			05-04-56	75-00-80	1	11-16-55
WATER LEVEL (FT BELOW LSD)	164		5.7	N	O	29	FLUWING		88.7	Ø 4	\$ C	r. cc	UNLA	25.5	25	24	37	63.1		14.8		m	000	m 1	130	<i>(</i> ,	5	60			193	0.1		186
DIAM OF WELL (IN)	27	12	9	9 !	α 4	ł oc (	V	9	9,	c v	c .	c	· (1	10	0	10	20	\$		20		v.	ç	02	o o	ď	)	Ø			20	v	;	16
TOTAL SCREEN LENGTH (FT)	7.5	36.5	prod prod	10	ر 0 م	\ (	<b>n</b>	I	9 ;	0 7	4	6	0	9 =	្រ	97	50	9		₩.		p <sub>n</sub> ,	proof (cod)	40	0 7 0	C		food			9	0		0.4
	-101	16	1 8	138	-241	100	7	-32	9.0	300	ment.	r r	17.	- 4 - 00	8	20	-140	(4)		4000		621	(°')	100	-176	4	)	0 5-			233	717	4	-140
SCREEN SETTING (FT A30V (F) MSL)		0 L	10	C 1		0	2	10	0	C (		5	-	0	10	0		0		٠ 9		0			00	0	)	7			10	-		10
SE SE (FT OR (-)		112		5.8	- 1C	100	r		0	o o	0	13.00 10.00 10.00	۸	1 40	63	vo.	06-	m	1	. 156					-166	-3		129			-173	.307		1.80
DEDTH OF WFLL (FT)	343	200	130	r o	203	e e e	4	3,6	106	~ (	200 200 200 200	ال ال	O	. 4	6 3	4.1	о С	0	(C)	000		164	U prod	300	334	20	4	57	283	515		436 200	, 4 , 7 , 7	390
MELL MELL	TEST	RECH	DEST	ACT IN	2 C L C L C L C L C L C L C L C L C L C	UNSD	7	a C L №	G C L	- SH3	TEST	ACT N	au La	RECH	RECH	RECH	WIDD	CKNO	TEST	0 F C ( F L	S)	CNNO	WIDD	0 C (	ORS	T L L	TEST	DEST	La.F	TEST	# TOD	TEST	TEST	MTDR
USE WATER	UNSIN	RECH	USNO	DOM		UNSD	C S S C	DOM	00M		UNSD	ď		RECH	RECH	RECH	o. v.	UNSD	CNO	o c	200	UNSD	COM	ທີ່ເ	CVNO	W C	UNCD	UNSD	USNO	CSNO		CVV		
ALTITUDE OF LSD (FT AROVE MSL)	219	51 216	121	0 10	247 7.	150	<u>.</u>	54	100	50	30	30	α σ	06	90	σ 0	119	α	00	0.00	N.	E PORT	000	000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	201	, C	0	20	257	257	ሌ ሌ ዩ ዩ	2 0 R	25.0
YFAR COMP- LFTED	1954	1954	1954	1954	1955	1954	† C -	1954	1954	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1954	1954	1054	1954	1954	1954	1955	1954	1954	10 C	400	1955	1955	1956	1955	ر بر	1955	o.	1955	1955	9.5	1955 1955	S P	1956
MAP COORD	C C L	ے لیا			<u>-</u> μ	10 c	2	0	u (	ن ر	n on	u		) (C)					ا ا	c (	Ξ.	C	C	0	n o o o	C	100	۵				ر د د		
OWNER OR WELL USER	R. ALTMAN AND CO	REALTMAN AND CO	GRAND UNION	L.J.GOLDBICH	MANDA PEALTY CO		CITIZENS WIN CO	H.SCHWART7	G.SCHINDLFD FAT	COURT MECK JAM	PORT WASH. WD	PORT WASH, WD	CM HUVE LOUG	M. MAGENHEIMED	M.MAGENHEIMER	M.MAGFNHETMER	WESTRURY WO	GFON INTERNAT	MANH LAKE . WO	MANH LAKE. WO	MANH LAKT . WI	F. GRUFNSTEIN	HTLL 'S MARKETS	PORT WASH, MD	DORT WASH, WD	MITTOCHDABO	GREAT NECK ESTS	GPEAT NECK EST	DR.D. RFLL IN	MANH LAKE . WD	MANH LAKF . WA	DORT MANT. WO	DEFEDDALE, TNC	DEEPDALE, TNC
W N N N N N N N N N N N N N N N N N N N	N 4417	N 4474 A 744 A 744				N 4 4 9 5			4763	411	N 4.859	4 0,	0.40	Z 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4888	4889		5074	N 5099	7000	7112				א א מרטה מעטה		N 17.06				こ ら の	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ייר ה היינה	55.35

Table 3.--Well completion data on selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

SPECIFIC CAPACITY (GPM/FT)		20		5.5 8.5	V = 6 0 0	o F	36	3. 4.		
AQUIFER JEVFL- OPED	UPGLAC		UPGLAC	MAGOTHY MAGOTHY LLOYD	UPGLAC WAGOTHY MAGOTHY UPGLAC	WAGOTHY UPGLAC WAGOTHY	MAGNTHY UPGLAC UPGLAC	MAGOTHY UPGLAC PTWAD	UPGLAC UPGLAC UPGLAC UPGLAC	UPGLAC UPGLAC UPGLAC UPGLAC
LIFT TYPE	NONE NONE		SUBM		NONE TURB SURM TURB SUBM	NONE TURB TURB	NONE TURB SURM NONE	NONE TURB TURB TURB	NONE NONE NONE	N N N N N N N N N N N N N N N N N N N
DATE OF MEAS. (M-D-Y)	07-00-56	06-19-56		11-00-55 08-16-56	08-23-56 01-11-57 06-04-56 05-04-56	06-06-57 06-10-57 05-00-56	07-28-56 08-24-56 08-00-56	06-17-57 06-04-57 05-00-57	06-08-56 06-21-56 06-13-56 07-02-56	07-02-56 06-18-56 06-29-56 07-12-56 07-12-56
WATER LEVEL (FT BELOW LSD)	35 22.6	36.5 46		21 48.5	140 114 30 73.8	175 57.5 155	50.5 55 FLOWING	π ες φ	2.61 11.36 14.63 FLOWING	25.15 27.15 27.15 27.15 11.78
DIAM OF WELL (IN)	40	13 E	vc	20 20 5	2.50 20 6	8 24	£ 6 6 6	5 5 5 5 5	1,255	1.25 2.25 2.25 2.25
TOTAL SCREEN LENGTH (FT)	51	20	pand pand	50	31 60 5	50 70 5	61 10 10	6 m m d	00000	0000
	-110	-301	37	-237 -125	-32 -206 -3 -15	-247	7.00-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1	5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	49001	- 11 rove
SCREEN SETTING (FT A30VF )P RFLOW (-) MSL)	0		10	T0 T0	5555	0T 0T 0T	0000	0000	0 t t 0 t 0 t 0 t 0 t 0 t 0 t 0 t 0 t 0	0 1 0 1 0 1
N 0 0 0	60	-251	8.4	-177	-146 -146 -10	-197 -68 -2	-24 -30 -78	-166 -77 35	04440	11100
DEPTH OF WELL (FT)	266 205	4 4 4 6 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	73	n to to de	130 243 390 52	517 487 295 243	2224 163 140 183	504 370 94 130	4 12 0 K a	3 4 4 5 5
OF	TEST	WIDE TEST WIDE	WTOP	WTDR WTDR DEST	DEST WTDR UNSD	TEST WTDR TEST WTDR OBS	TEST WTDR UNSD UNSD	TEST WTDR WTDR WTDR	085 085 085 0EST 085	08S 08S 08S 08S
USE	UNSD	UNSD P.S.	DOM ON	P.S. UNSD	UNSD IND P.S. DOM UNSD	UNSD P.S. UNSD P.S. UNSD	UNSD P.S. UNSD UNSD UNSD	P.S. OTHR DOM	ONSD ONSD ONSD ONSD ONSD	OSNU OSNU OSNU OSNU OSNU
ALTITUDE OF LSD (FT AROVE MSL)	0 0 v	106 114 144	011	199 98 130 15	21.7 179 49 91	235 100 100	4 4 5 5 8 8 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	129 129 10 120	まま 4 m β c c c m ア c	21 7 7 113
YEA	1956	1956 1955 1956	1955	1956 1956	1955 1956 1957 1956	1956 1957 1956 1957	1956 1957 1956 1956	1956 1957 1957 1959	1956 1956 1956 1956 1956	1956 1956 1956 1956
MAP COORD	1	0 C C 6 R R		C 6 7 6 7 6 7 6 9	60000 90545	00000 9955	00000 00000	0 0 0 0 0 0 0 0 0 0	0 4 6 0 0	0 C C F C 9 0 0 C F C
MAIFR OR	SOUTRE THEATRE	MINFOLA GARD, CTY PK WD GARD, CTY PK WD	ATNA	CCA	MCCORMACK SAND H.RURENSTEIN CO MANHLAKE. WD R.ZWERLING CROSSMAN CADIL	ROSLYN WD ROSLYN WD PORT WASH, WD PORT WASH, WD	CITIZENS WTR CO CITIZENS WTR CO G.GOLDREPA DAVID GIMPFL PORT WASH. WD	ALBERTSON WD ALBERTSON WD GREAT NECK ESTS L.SCHOENFIFLD SINGLO CAR WASH	U.S. GFOL CURV U.S. GFOL CURV U.S. GFOL CURV U.S. GFOL CURV U.S. GFOL SURV	U.S. GFOL SURV U.S. GFOL SURV U.S. GFOL SURV U.S. GFOL SURV U.S. GFOL SURV
- L	1	2		2	N 5640 N 5710 N 5710 N 5743 N 5761	N N N N N N N N N N N N N N N N N N N	Σ Σ Σ Σ Σ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ Γ	N N N N N N 0 0 0 0 0 0 0 0 0 0 0 0 0 0	~~~~~	N N N N N N N N N N N N N N N N N N N

SPECIFIC CAPACITY (GPM/FT)	5741 188174	∾ • ~	<b>4</b>	т Г	ന	0,	۳	
AQUIFER DEVFL- OPEN	UPGLAC MAGOTHY MAGOTHY UPGLAC PTWAQ	UPGLAC UPGLAC UPGLAC	UPGLAC UPGLAC WAGNTHY UPGLAC	UPGLAC WAGOTHY WAGOTHY	PTWAQ UPGLAC UPGLAC UPGLAC	UPGLAC MAGNTHY UPGLAC UPGLAC	WASOTHY UPGLAC UPGLAC PTWAG	WAGOTHY WAGOTHY UPGLAC UPGLAC
LIFT	NONE TURB TURB TURB	TURB SUBM NONE NONE	NONE TURB NONE TURB	NON TURNE RONE	N N N N N N N N N N N N N N N N N N N	NONE TURB TURB	SUBM NONE NONE TURB	NOON NOON NOON SUBMER
DATE OF MEAS. (M-D-Y)	07-12-56 12-20-56 01-11-57 12-20-56 01-17-57	06-10-57 04-04-57 12-26-56	12-26-56 02-01-57 03-02-57 02-08-57 03-00-57	01-00-57 06-13-57 06-05-57	08-23-57 07-09-57 06-28-57 06-17-57	07-05-57 05-26-58 08-00-57 10-00-57	08-30-57 08-28-57 10-29-57 09-17-57	03-00-58 02-00-58 03-24-58 10-00-55 07-00-55
WATER LEVEL (FT BELOW LSD)	12.43 153 137 69	118 81.3 63.90	50.11 71.20 53 7 39.5	写 の で は な	00000000000000000000000000000000000000	9 8 8 7 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9	69.54 37.29 23.05	127 127 37.15 65
DIAM OF WELL	2.50 16 16 8	10 6	12.25 2.25 2.25 4.25	વ જ જ	S S S S S S S S S S S S S S S S S S S	~ & & & & & & & & & & & & & & & & & & &	10 CV PM PM PM PM	200040
TOTAL SCREEN LENGTH (FT)	70 71 11 5	5 2	0 0 N 4 N	10	0 NNNN	Novan	ちろくりと	\$ \$ \$ \$ \$ 1 \$ \$
	-89 -96 -96 -98	-72 15 83	28 128 -29 23	-133	20 00 00 00 00 00 00 00 00 00 00 00 00 0	1	132	C C C C C C C C C C C C C C C C C C C
SCREEN SETTING FT ABOVE IR RELOW -) MSL)	01 01 01	0 10	0 1 1 0 0 1 0 1	0 10	00000	0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00000	00000
	-8 255 93	143 20 85 73	30 144 133 28	1105	282 10 17 22 27	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	1386	R & W N 4
DEPTH OF WELL (FT)	15 307 294 106 110	95 103 456 74	129 99 181 37	E C C C C C C C C C C C C C C C C C C C	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	3530	208 185 375 29	205 705 741 103
OF WELL	OBS WTDR WTDR WTDR DEST	WTDR UNSD TEST TEST 08S	OBS OBS WTDR UNSD	TEST WTDR WTDR	OBS DEST DEST DEST OBS	OBS WTDR UNSD WTDR	WTDR 085 085 WTDR 085	RECH OBS ¥TDR
USE	OSNO COM COM COM	P.S. UNSD UNSD UNSD UNSD	UNSD UNSD ARCD UNSD	UNSD UNSD ARCD ARCD UNSD	UNSD UNSD UNSD UNSD	UNSD P.S. UNSD IRR DOM	ARCD UNSD UNSD IND UNSD	RECH UNNO DOM
ALTITUDE OF LSD (FT AROVE	115 1198 120	20 1118 157 1111	157 1111 123 8	103222 103222	102 110 73	1000	000 r r	00 L a 4
YFAR COMP- LETED	1956 1956 1957 1956	1957 1957 1956 1957	1956 1957 1957 1957	1956 1957 1957 1957	000000000000000000000000000000000000000		1957 1957 1957	20000000000000000000000000000000000000
MAP	C C C C C C C C C C C C C C C C C C C	7 7 7 7 7 7	СПОПО КВФВВ	0000H	M C C C F R R R R R R R R R	E O M O O	O M M O M N R N A N	C0000
MELL USFR	U.S. GEOL SURV STH AVE CENTED STH AVE CENTED DEAN FURNTTURE GREAT NECK SD	PORT WASH. WN 310 N.RLVN.CORP PORT WASH. WN U.S. GFOL SURV	U.S. GEOL SURV U.S. GFOL SURV ARILITIES INC MEADOWRROOK RK JASCO ALUMINIM	PENN INDUSTRIES PENN INDUSTRIES SFRVOMECHANISMS J.F.RURNS U.S. GFOL SURV	U.S. GFOL SURV U.S. GFOL SURV U.S. GFOL SURV U.S. GFOL SURV U.S. GFOL SURV	U.S. GFOL SURV CARLE PLACE WD GOTHAM SAND CHAMINADE H SCH A.COHEN	MFADOWRROOK BK NASSAU CO DPW H.S. GFOL SURV COLONTAL SAND U.S. GFOL SURV	5TH AVE CENTER 5TH AVE CENTER U.S. GFOL SURV ROHACK CORP A.GITILESON
WELL NIMMER	N N N N N N N N N N N N N O O O O O O O	N 6087 N 6088 N 6089 N 6095	N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X	N

able 3.--Well completion data on selected wells and test holes in Town of North Hemostead, Nassan County, New York (Continued)

			YEAR	10	USE	0.5	DEPTH OF	SCREEN SETTING (FT ABOVE		TOTAL	DIAM	1 32 <i>- 1</i>	_		AQUIFER	SPECIFIC
WELL NUMBER	OWNER OR WELL USER	MAP COORD	COMP- LETED	(FT ABOVE MSL)	WATER	WELL	WELL (FT)	OR BELOW (-) MSL)	1	LENGTH (FT)	WELL (IN)	(FT BELOW LSD)	MEAS. (M-D-Y)	LIFT	DEVEL- OPED	CAPACITY (GPM/FT)
		w	1918	112	P.S.	WITOR	320				αc			OTH	PTWCU	
N 6717		4 v	1960	4	DOM	3 C L B	128	-75 T0	-86	11	ş	34.3	09-04-29		PTWAG	11
12/4 1		٥ د	1959	148	ONSD	DEST	119		53 i		œ,	79.7	08-06-59		UPGLAC	16
		۵ د	1959	80.	0	2 H	102	-64 TO	4/-		œ.	14.5	09-04-59		UPGLAC	10
N 5/38	FMPLE M.SHOLEM	<u>_</u>	1959	152	OSNO	DEST	123		50		9	CJ	65-00-60	NONE	UPGLAC	
			1959	31	RECH	RECH	106		-75	20	9	0	09-00-20	NON	UPGLAC	
			1959	16	CNI	WTDR	81		11	ro	4		10-00-59	SUBM	UPGLAC	
		النا	1959	189	DOM	WTDR	144	51 TO	45	9	9	9	10-01-59	SUBM	UPGLAC	-
Z 6812	WESTBURY HEBREW WESTBURY WO	9 0	1960	123	ARCD P.S.	2 C C B B	767	-85 TO	135	ر 0 د	۵ د د	46°5	01-15-60 SI	SUBM	UPGLAC	13
			•	•			-	,	4	)	,		,	9		ň
N 6845		ь Б		18	OSNO	DEST	360				12			NONE	PTWAG	
		انيا	1961	109	INST	α  -    *		-229 TO	-244	15	αc	101	3-23		PTWAG	15
		u (	1960	17	000	2 i	127		- 55 - 55	9	4		03-01-60		UPGLAC	
N 6865		v ا	1960	œ.	S.	9	301	m	-214	7	oε	24.8	5-25-6	TURB	MAGOTHY	10
	REESE		1960	138	CSNO	DEST	134	10	4	-	4	68	06-28-60	NONE	MAGOTHY	
N 6918	FMPTRE BILLET		1960	78	UNSD	DEST			-216	50	10	83	07-26-60		MAGOTHY	20
		C	1960		UNSD	UNSD		-255 TO	-265	10	4	30	7-2		LLOYD	4
N 6945	GARD. CTY PK	0.05	1960	154	UNSD	TEST								NONE		
N 6945		۵	1961	154	P.S.	WTDR		Ch.	-247	20	20	92.5	9-60-9		MAGOTHY	37
	J.GILLIGAN		1960	4	DOM	WTDR	127	-98 TO	-103	ហ	4	47	10-03-60	SUBM	UPGLAC	-
	FASF-DIAN INT		1960	42	ARCD	A C L	v		4	7	νς.	65.5	10-12-60	SUBM	UPGL AC	· gov
			1960	7	OSNO	UNSD	0		-36	10	9	'n	11-00-60	SUBM	UPGLAC	4
N 7053	NORTH HILL	5	1961	200	IRR	WTDR	vc	-37 TO	-77	40	12	120	06-20-61	TURB	MAGNTHY	2
	GFRTZ		1961	α,	COM	M TOR	03		-105	20	œ	44	08-03-61	TURB	MAGOTHY	o,
	INSUL-CUP		1961	100	OSNO	UNSD	c		30	ហ	9	35	06-00-61	SUBM	UPGLAC	
N 7104	ROSLYN WD		1961	158	UNSD	F (S)	472							NONE		
	ROSLYN WD		1962	158	o.S.	WIDE	36	-203 TO	-273	55	50	0.6	06-05-62	TURB	MAGOTHY	22
	MANHOLLAKE		1961	193	CS SO	TEST	50					i		NON NO		į
N 7176		ວ ພ ກາ	1961	m (c	ກຸດ ພັດ	X 0 0 C = F	- C - C	135 10	102 I	⊃ u x: u	O 4	134.5	09-61-61	g	MAGGIAT	ກ່ອ
			7267	001	ė e	E .	n F	)	011		7.0	ال 1	0137		3 4 1 5 1 5 1	9
			1961	114	UNSD	UNSD	ح	9	-36	0 [	9	75	11-00-11	NONE	UPGLAC	
N 7186		9 0	1962	66	UNSD	CNSD	322	-190 TO	-230	40	2	15	29-90-20	TURB	MAGOTHY	E C
			1962	<u>د</u> ا	€ CO	00 ( C (	717		101	0.	9	FLOWING	03-21-62	CKB CKB	UPGLAC	•
N 7244			1962	n m	C Z	a - 1 - 1 - 1	30%		062-	10	ac ·	2 :	9-00	m :		4
	GERTZ STORFS		1962	66	RECH	E CH	125	5 40	-26	EQ.	9	r r	04-00-62	NON P	UPGLAC	
N 7334	JAMAICA WTR CO		1962	120	UNSD	TEST	480							NON		
N 7334		0.5	1962	120	UNSD	TEST	50	-	-330	50		.72	0-15-6		WAGOTHY	
-	٥		1962	120	OSNO	TEST		-152 TO	-172	20		72	-31-		MAGOTHY	
N 7336	P.F.CAPUTO		1962	144	DOM	WTDP	123	1	21	9	4	7.1	2-11-6	SUBM	MAGOTHY	
1	WESTBURY WD		1962	120	OSNO	TEST	415							NONE		

SPECIFIC CAPACITY (GPW/FT)	1	E	30 10 26 16	34 14 19	a.	n 20		4 W W	
AQUIFER DEVEL- OPED		UPGLAC UPGLAC UPGLAC	MAGOTHY UPGLAC UPGLAC MAGOTHY MAGOTHY	MAGOTHY MAGOTHY MAGOTHY	MAGOTHY WAGOTHY MAGOTHY	UPGLAC UPGLAC LLOYD WAGOTHY	MAGOTHY MAGOTHY WAGOTHY	UPGLAC WAGOTHY UPGLAC UPGLAC	UPGLAC UPGLAC UPGLAC UPGLAC
LIFT		SUBM SUBM SUBM	TURB SUBM SUBM TURB	TURB NONE TURB NONE SUBM	N N O N N N N N N N N N N N N N N N N N	SUBM SUBM NONE TURB	N N O O N O O N O O O O O O O O O O O O	SUBW SUBW OTHR OTHR	07448 07448 07448 07448
DATE OF MEAS。 (M-D-Y)	10-31-62	05-01-63 01-10-63 07-27-63	04-28-64 06-00-63 09-02-63 06-30-65 06-17-64	02-07-64 10-08-64 08-04-64	05-00-64	06-03-64 07-10-64 07-00-62 10-09-64	09-10-64 09-16-64 12-18-64	01-00-65 01-00-65 02-09-65 02-09-65	02-09-65 02-09-65 02-10-65 02-10-65
WATER LEVEL (FT BELOW LSD)	39°6	6 9 9 5 5 5	74 62 18 68 96	114°6	102	34 49.5 43	M GA INS B M GA B M	9 0 4 0 5 0 5 0 6 0 6 0 7 0 7 0 8	1.3 FLOWING FLOWING FLOWING
DIAM OF WFLL (IN)	20	4 ·C ·C	18 4 8 20 20	S S 8	90 V9 CP	400 0	~~~	440000	αααααα
TOTAL SCREEN LENGTH (FT)	90	10	50 50 50	9 9 4 4	0 0 0	P 0 4 4	$n \sim n$	00mm 000m	M M M M M M
	-270	-73 -36	-328 34 38 -252 -316	-174	25 25 25 25 25 25 25 25 25 25 25 25 25 2	197	0 0 0 0	0 4 M M Q	44624
SCREEN SETTING FT ABOVE R RFLOW		3 10 0	8 TO 4 TO 5	9 T0 3 T0 7 T0	0 4 0	E O E O	000	00000	0 1 1 0 1 0 1
1	113	-31	25. 4.05. 1.05.	-215-	-24	W 4 00 10	5 K C C C C C C C C C C C C C C C C C C	44000	11111 00000 00000
DEPT: OF WELL (FT)	391	200 200 118	453 104 62 380 475	280 605 473 598 458	404 000 404 7000	293 235 573 608	2021 2021 2021 200 200	40044	百百百百百 <b>6 6 4 4 6</b> 0 0 4 6 0
OF WELL	ACTW ACTW ACCE	W T D R	X X X X X X X X X X X X X X X X X X X	M TEST M TEST M TEST M TOR	TEST OBS TEST OBS	S C C C C C C C C C C C C C C C C C C C	0885 0885 0885	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2
USE WATER	o CNI	ARCD COM	P P P P P P P P P P P P P P P P P P P	ARCD UNSD UNSD P.S.	UNSD UNSD UNSD COM	UNSD DOM UNSD P.S.	UNSD UNSD UNSD	2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
ALTITUDE OF LSD (FT AROVE MSL)	120 96	x m x	120 138 100 123	106 167 167 143 143	153 153 150		4 4 5 6 8 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	the less that the the	World and box box
YEAR COMP- LETED	1962	1963 1963 1963	1964 1963 1963 1965	1964 1964 1964 1964	1964 1964 1964 1964 1964	1964 1964 1963 1964 1964	4 4 4 4 4 4 4	19665 19665 19655 19655	1965 1965 1965 1965
MAP COORD	C O C	000	0 0 0 7 0 0 5 0 0 0 0 0 0 0 0 0 0 0 0 0	9 C C C C C C C C C C C C C C C C C C C	00000	mcccc 50455	00000 00000	00000	00000 000000
0.8 1.4.F.P.	M NO	CORP SPP	HEADY S PEADY PK WD SURY	3333	+ WD + WD + WD + WD - WD	AND DIVER E SINAT DL HOLDINGLAKE, WD	. T. O.	Canin SEE	
OWNER OR	WESTRURY WN PIONEER MASON MBS B.GADDINE	APCO ELFC. CORP ROHACK CORP	JAMAICA WTP. CO LOUIS KOCH FLATLANDS PEANY GARD. CTY PK WD	L.LEVER PORT WASH. PORT WASH. PORT WASH.	PORT WASH. PORT WASH. PORT WASH. LEVITT AND	PEAL AND DIVER TEMPLE SINAT MANSOL HOLDING MANH, -LAKE, WD	MANH, -LAKF, WD MANH, -LAKF, WD NASSAU CO DPW NASSAU CO DPW NASSAU CO DPW	R. MILLSPUSH ANNHLAKF. MANHLAKF.	M M M M M M M M M M M M M M M M M M M
WFIL NUMBFR	N 7353 N 7376 N 7376		N 7445 N 7454 N 7470 N 7512	N 7524 N 7551 N 7551 N 7552 N 7552	N 7553 N 7553 N 7554 N 7554 N 7556	N 7578 N 7581 N 7513 N 7551	N 7555 N 7555 N 7570 N 7571	N 7731 N 7732 N 7747 N 7748 N 7748	N 7750 N 7751 N 7751 N 7753 N 7753

Table 3.--Well completion data on selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

	ी विश्ववाद्या	4 7 8 4	24 119 119	40 0 pm	10 0 31 4 55 10 0 11 4 55	25	നന	e
CAF	7 8 8 8							
AQUIFE DEVEL- OPEN	UPGLAC UPGLAC UPGLAC UPGLAC	UPGLAC MAGOTHY UPGLAC MAGOTHY MAGOTHY	MAGOTHY MAGOTHY UPGLAC	UPGLAC UPGLAC UPGLAC UPGLAC			LLOYD LLOYD PTWAQ	MAGNTHY UPGLAC UPGLAC UPGLAC UPGLAC
LIFT TYPE	OTHR OTHR OTHR NONE	NONE SUBM TURB TURB	TURB NONE SUBM OTHR	0000 01 11 11 12 13 14 14 14 14 15 16 16 16 16 16 16 16 16 16 16 16 16 16	OTHR OTHR OTHR SUBW	SUBM TURB NONE	SUBM NONE NONE SUBM	SUBM SUBM SUBM SUBM SUBM
DATE OF MEAS. (M-D-Y)	02-09-65 02-11-65 02-10-65 02-10-65	05-03-65 11-27-64 05-24-65 06-05-65	06-21-65 09-09-65 02-02-66 02-02-66	02-02-66 02-02-66 02-03-66 02-02-66	01000	13-6	9-4	08-00-66 09-00-66 08-07-66 11-00-66 11-00-66
WATER LEVEL: (FT BELOW LSD)	FLOWING FLOWING FLOWING	37 47 FLOWING 39 121	155 89 FLOWING FLOWING	FLOWING FLOWING FLOWING FLOWING	MAING MING SWING	CV		111 70 70 70 80
DIAM OF WELL (IN)		20 20 20	20 88 8	αααααα	acacac∙o ∢	000- 0004 0	80 80 VC	44044
TOTAL SCREEN LENGTH (FT)	20 20 20	24 70 27 30 60	85 11 20 20	20 20 20 20 20 20 20 20 20 20 20 20 20 2	\$ 0000 \$	74 00 24 03	bed here here	201102
	-125 -125 -126 -126	-58 -292 -99 -144	-251 -124 -117	1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1111	-223 -223 -185	-365 -383 -215	153
BH A H	0 1 0 1 0 1 0 1	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0000	00000 0	occo 	0T 0T 0T	0 1 0 1 0 1
SE SE (FT OR	1105 1105 1105	-222 -722 -1114 -217	-166 -104 -97	-102 -105 -106 -106	1007	1153	-354	100
DEPTH OF WELL (FT)	141 141 141 141 310	101 404 129 251 535	202 202 144 133	138 140 138 141	1388 141 133 135 135	4 5 5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6	744	101111
OF WELL	WTDR WTDR WTDR	DEST WTDR WTDR WTDR	WTDR WTDR WTDR	#10R #10R #10R #10R	33333 3 00000 0 00000 0	WTDR WTDR OBS	1 - W W Z	WTDR WTDR WTDR
USE	P	P C C C C C C C C C C C C C C C C C C C	UNSD UNSD POSM S.S.		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	UNSD UNSD	IND	M M M M M M M M M M M M M M M M M M M
ALTITUNE OF LSD (FT ABOVE MSL)	2 T T T T T T T T T T T T T T T T T T T	10x 10x 30 106 253	200 80 138 15		2 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	222 225 225 20 20 20 20 20 20 20 20 20 20 20 20 20		5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
YFAR COMP- LETED	1965 1965 1965 1965 1965	1965 1965 1965 1965	1965 1965 1965 1966	1966 1966 1966 1966	1966 1966 1966 1966 1965	1966 1966 1966 1966		1966 1966 1966 1966 1966
MAP COORD	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	00000 02000	0 C C C C C			M 41 0 0 0 0	មាកាកាកា មេសមមម
α	2 2 3 3 3 I	EST	3 55	33333	5555	V Q. Q	SAND	
OWNER OR	MANHLAKE. WD MANHLAKE. WD MANHLAKE. WD MANHLAKE. WD LEASE. PLAN INT	LEASE PLAN INT WESTBURY WD J.H.WHIINFY ES S.G.ATLAS ROSLYN WD	MANHLAKE. J.RAE F.REESF MANHLAKF.	MANNH LAKE. MANNH LAKE. MANNH LAKE. MANNH LAKE.	MANH LAKE. MANH LAKF. MANH LAKF. J. RAE.	WESTRURY WN ROSLYN WD LAKE SUCCESS NASSAU CO DPW	COLONIAL SACOLONIAL SA	H.CAZALET S.GOLDBERG S.BERLFY A.JUST F.REA
WFLL	N 7755 N 7756 N 7756 N 7757 N 7758	N 7770 N 7785 N 7846 N 7849 N 7873	N 7892 N 7922 N 7935 N 7935	N 7964 N 7965 N 7965 N 7965	7968 7969 7970 7971 7971		N N N 0 0 0 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N 8164 N 8164 N 8166 N 8166

SPECTFIC CAPACITY (GPM/FT)	· c	,	<b>∼</b> (	10	27	13	_		;	o N		26		25			,		Č	99	4	ŝ			ì	10	j		-	~		34	25				
AQUTEER DEVEL- OPED	MAGNTHY UPGI AC		LLOYD					UPGLAC			A 5000		2	LLOYD	MAGOTHY						MAGOLMY		4 5  1			MAGOTHY			1.1 0.40	DIMC		MAGOTHY		MAGOTHY	MAGOTHY		
LIFT	SUBM		SUB	- CX	1100		NON	NO N	NONE	SUBM	200	T I R R	2	TURB	1188	NON			NONE	1088	\$000 000 000 000 000 000 000 000 000 00	2000	200	NON	NON C	3023	SUBM	200	2		NO Z	SUBM		ENON S	N C N		
DATE OF MEAS。 (M-D-Y)	20 - X0 -	11-15-66	02-00-67	03-24-01	79-00-50	05-31-67	05-23-67	04-04-67		06-05-67	03-31-07	10-10-10	20-20-60	08-08-67	79-00-00	9	05-00-68	9	19-00-60	05-06-69	00-1	89-12-90	2			13-07-08	08-00-68		01-72-69	09-26-68		01-24-69	11-22-68		04-00-40	01-14-6	
WATER LEVEL (FT BELOW LSD)	8 8 6 6 6 6 6 8 8 8	75.8	76	100	63	79		40.43	40°63	in in	106.63	™ U	n Ż	<u></u>	a	0 8	0 00	9	011	62	34	រ មា	Ţ			110	າ ອີ ແລ ກໍ່ເກີ		ď	ന		5	108	123,65	0.7	133.00	
DIAM OF WELL (IN)		10	9	21	ć	10		1.25	4	12	4 .	4 0	c	16	ç	y a	O 00	5	œ	20	\$0	ac ·	vo			0 6	O 40		a	o vo		20	16	1.25	,	1.25	
TOTAL SCREEN LENGTH (FT)	100	12	<b>—</b> (	30	u	36	12	m	5	30	ហ	10		61	Ċ	4 4	9 6	0	47	9	0 1	<u>ا</u>	0			4	0 0		0			80	9	ır	č	ပေ လ	
	-96	-105	-215	-249	0	-195	-160	47	25	-258	-56	4-1-1	011	-416	1	1018	100	1521	-435	405-	76-	N	~ 00 1			1494	1000		00	greet.		424	-130	1	i	101 14	i
SCREEN SETTING (FT ABOVE OR BELOW (-) MSL)	-89 TO		204 TO			-191 10 -71 T0		50 TO		.228 TO		6 10		355 TO	,	-236 10	) C	2	m	44	40	-	.172 TO			44 (	159 10		6	-106 TO		-341 TO	-20 TO	O.	ŧ	01 6-	
EPTH OF FT)	240		- 062	350		300		49		•	a	oc (	168	434 -	4 10 10 11	765					133	96	237	279	\$20		4 4 4 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		523				270	posit Pos posit	22	180	5
OF WELL (	QTV QCTV	WTDR	MTOR	WTDR		X C Z	TEST	DEST	988	WTDP	088	3 C F F	3	MIDR	TEST	#10F	717	7 1 1	RECH	ATOR ATOR	MIDR	MIDH	#TDP	(5) (4)	TEST	2018		- 1	TEST	2 E	TEST.	WIDE	0	088	TEST	OBS	}
USE	IRR	I CNI	MOO.	IRR	0.00	, M	UNSD	UNSD	OSNO	ARCD	CNS	0	v.	0° S°	GSNO	ARCD Pro:	2 6	E U	RECH	0° S	COM	₩00	DOM	UNSD	UNSD	COM	0. E		CSNO	500	CSNO	s.	ARCD	UNSD	UNSI	RECH	5
ALTITUDE OF LSD (FT AROVE	1	120	75	101	x ;	 	125		111	0	143	114	64	80	6	0 (	5 .	5	110	96	39	68	n n	r r	105	105	M		a a	a o x r	ال مور مور	U post	0.45	45	130	106	5
YEAR COMP-	1968	1967	1961	0 0	1961	1968	1961	1961	1976	1961	1961	1961	1961	1961	1967	1967	1961	1968	1967	1969	1968	1968	1968	1971	1968	96	1969	0061	1969	1969	1068	1969	1060	1968	1969	1969	1707
MAP COORD	1	יי ט טיני				י סוג				ပ	C	ED I		0		ر ا ما				ں	5	0	c				4 Q			c u	JC		c	م د	0	9 10	
OWNER OF	OLD WEST. GARD	G. HUNINGTON	R.D.SCHWARTZ	SAND POINT GC	WILL ISTON DARK	WILLISTON DARK	KLEIN-TFICHOL7	NASSAU CO DPW	MASSAU CO DPW	L.I.LIGHTING CO	NASSAU CO DPW	G. BARES	SANDS POTNT	CITIZENS WTR CO	L.S.O. CORP	L.S.Q. CORP	L.S.Q. CORP	L.S.Q. CORP	CONST. UNITM	GARD, CTY DK WD	GPEAT NFCK VIL	280 ROILEVAPD	P. BALLIN	- 140 - 140	CONST. IN TW	CONST. UNLTW	CARLE PLACE WD	AUVANCE FORD	RUSLYN PLAZA	ROSLYN PLAZA	2	WESTRURY WD	7000 × 7000 0	NASSAU CO DPW	HYDF PAPK ASSOC	WESTBURY THEA	NASSAU CU UTª
WELL NUMBER	1		1558	2746		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2						N 8310		α	QC	N 8358	α	CC.		94.09		9431	ጸፋቫቫ	u 0 2			3.			N 8477		N 2497		2 Z Z		N :	

Table 3.--Well completion data on selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

SPECIFIC CAPACITY (GPM/FT)	70.4	12	133	4 r.	& ≪ E	∞ r ∞	37
AQUIFER DEVEL- OPED	MAGOTHY WAGOTHY WAGOTHY WAGOTHY	MAGOTHY MAGOTHY LLOYD WAGOTHY	UPGLAC UPGLAC PTWAG MAGOTHY	UPGLAC LLOYD UPGLAC UPGLAC	UPGLAC PTWÃA LLOYD	MAGOTHY WAGOTHY WAGOTHY WAGOTHY	WAGOTHY UPGLAC UPGLAC UPGLAC WAGOTHY UPGLAC UPGLAC UPGLAC
LIFT	NONE TURB TURB NONE	NONE NONE TURB	NONE NONE SUBM SUBM SUBM	TURB SUBM NONE SUBM	NONE NONE TURB	SUBW TURB NONE NONE SUBW	NON TURB NON TURB NON NONE
DATE OF MEAS. (M-D-Y)	07-08-69 07-02-69 06-00-70	00-00-70 00-00-70 08-00-69 06-11-71	05-26-69 05-23-69 10-14-69 11-14-69 06-19-70	08-16-66 03-19-70 07-07-70 11-15-70	10-04-71 06-01-71 08-27-71	08-04-71 07-17-72 00-00-72	07-08-72 08-23-72 08-31-72 07-30-75 11-06-73 04-23-73 11-16-72 01-11-73
WATER LEVELI (FT BELOW LSD)	92 122 91	90 90 180 55	66.85 67.76 54 63.5 23.8	58 6.2 52.90 68	94.5	M M M M M M M M M M M M M M M M M M M	118 1.69 7.40 FLOWING 134 55.10 69.35 51.70
DIAM OF WELL (IN)	. 20 18 8	88 9 02	√ 4 ∞ ∞ ∞	00 N4	2 82	000 0 0 0 0 0	□ 444€ 40€
TOTAL SCREEN LENGTH (FT)	60 60 60	60 52 60	3 15 20 20	111 16 15 15 15 15 15 15 15 15 15 15 15 15 15	30	31 30 40 20	&
	-268 -172 -130 -120	-120 -111 -550	36 -89 -235	-362 33 -46	-115 -262 -366	-110 -133 -131	1111 846411 1111 84850 1111 84811 2481
SCREEN SETTING (FT ABOV OR BELOW (-) MSL)	-208 TO -22 TO -70 TO	-60 T0 -71 T0 498 T0 333 T0	39 T0 9 T0 -74 T0 215 T0 377 T0	20 T0 346 T0 38 T0 -41 T0	-85 TO	-79 T0 -34 T0 -87 T0	-82 T0 -59 T0 -48 T0 -61 T0 -7 T0 -50 T0
DEPTH OF WELL (FT)	21 11 12 12 12 12 12 12 12 12 12 12 12 1	250 241 745 551	107 107 1160 424	96 377 - 5 595 100	386 386 444 230	2221 2280 1-872 1-788	240 53 63 298 173 60 77 108
OF WELL	TEST W T D R W T D R R E C H	RECH RECH TEST WIDR	OBS OBS WIDR WIDR	WTDR WTDR TEST OBS	WTDR TEST OBS WTDR	WTDR WTDR RECH TEST DEST	DEST OBS DEST OBS WIDS WIDS OBS
USE WATER	UNSD P.S. ARCD RECH RECH	RECH RECH UNSD	UNSD UNSD ARCD IRR IND	IND IND UNSD UNSD DOM	IRR UNSD UNSD IRR UNSD	IRR ARCD UNSD UNSD	UNSD UNSD UNSD UNSD UNSD UNSD UNSD
ALTITUDE OF LSD (FT ABOVE MSL)	142 142 130 130	130 139 1125 112	109 111 104 75	105 15 183 96 54	140 98 98 76	114471113333333	201 100 100 100 100 100 100 100 100 100
YEAR COMP- LETED	1969 1969 1970 1970	1970 1970 1969 1969	1969 1969 1969 1969	1966 1970 1970 1970 1970	1971 1971 1971 1971	1972 1972 1972 1971	1972 1972 1975 1975 1973 1973 1973
MAP COORD	00000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0000 0000 0000	0 M D O M 0 0 N N N N	OFFEC RESERVA	00000 96000	
OWNER OR WELL USFR	ALBERTSON WD ALBERTSON WD HYDE PARK ASSOC HYDE PARK ASSOC HYDE PARK ASSOC	HYDF PARK ASSOC HYDF PARK ASSOC POSLYN PLAZA MINFOLA MINFOLA	NASSAU CO NPW U.S. GFOL SUPV TFMPLE RETH-EL HOLY ROON CTRY COLONIAL SAND	AWER. IMP. PROD COLONIAL SAND MANHLAKF. WD NASSAU CO DPW D.E.AXINN	NO. HEWD. CC SANDS POINT SANDS POINT PLANDOME CC WHEATLEY HLS GC	WHEATLEY HLS GC A.L.L. ASSOC A.L.L. ASSOC NASSAU CO DPW TTRF RFALTY	TTRE REALTY NASSAU CO DPW NASSAU CO DPW NASSAU CO DPW OLD WESTRURY CC H.CAHN H.CAHN NASSAU CO DPW NASSAU CO DPW NASSAU CO DPW
WFIL	2	N N N N N N N N N N N N N N N N N N N	X X X X X X X X X X X X X X X X X X X	N N S S S S S S S S S S S S S S S S S S	N 8755 N 8756 N 8766 N 8790 N 8790	N N N N N N N N N N N N N N N N N N N	2

SPECIFIC CAPACITY (GPM/FT)	, FFI	C)				
AQUIFER DEVEL- OPED	UPGLAC UPGLAC PTWAQ PTWAQ	UPGLAC UPGLAC UPGLAC UPGLAC LLOYD PTWCU WAGOTHY UPGLAC UPGLAC	LLOYD WAGOTHY UPGLAC UPGLAC	LLOYD LLOYD LLOYD LLOYD LLOYD LLOYD MAGOTHY WAGOTHY	LLOYD MAGOTHY LLOYD LLOYD MAGOTHY WAGOTHY	UPGLAC PTWCU UPGLAC
LIFT	NONN NONE NONE	NONE NONE NONE SUBM NONE NONE	NON			NO N
DATE OF MEAS. (M-D-Y)	07-09-73 07-11-73 11-26-74 04-00-74	05-00-74 05-00-74 05-00-74 06-14-74 07-26-74 02-18-75 03-17-75	04-20-76 04-14-76			06-28-77
WATER LEVEL (FT BELOW LSD)	30.72 129.57 14.2 85	31.5 31.5 39.0 39.0 35.3 44.3 75 35.55	4°75			7.51
DIAM OF WELL (IN)	αονο		00 A0 A4 A0		) ବ ବନ୍ଦବନ୍ଦ )	10 4 4
TOTAL SCREEN LENGTH (FT)	ស ស <b>១</b> ដ	rrii 4 41 00 00 00 00 00 00 00 00 00 00 00 00 00	55 5			വ വ
SCREEN SETTING T( (FT ABOV= S( OR BFLOW L! (-) MSL)	-38 -39 -305	111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1371			38 38
	-33 T0 -34 T0 -277 T0 -290 T0	13 T0 -28 T0 -32 T0 -323 T0 -182 T0 -9 T0 -9 T0 -9 T0 -6 T0	-351 TO -11 TO -44 TO			-73 70
DEPTH OF WELL	235 85 308 387	0	10 m m m m m m m m m m m m m m m m m m m	44m44 mmm messum mvnv cesses rome	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 7 0 4 8 0 4 4 6 8
OF WELL	TEST 08S 08S 08S	085 085 085 085 085 085 085	08S 08S 08S 08S	PERSONAL STREET	DESTA ST	0EST 0BS 1EST 0BS
USE	UNSD UNSD UNSD ARCD	UNSD UNSD UNSD OTHR RECH IND DOW UNSD	UNSD UNSD UNSD UNSD	GSNUU	CSNU CSNU CSNU CSNU CSNU CSNU CSNU CSNU	UNSD UNSD UNSD UNSD UNSD
ALTITUDE OF LSD (FT AROVE MSL)	4 4 7 1 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	киги	ה אי אי מ ת ת ת יי מ	OC OC OC peril C peril peril pe	of good OC OC I good print upon t good good good good good	488446
YEAR COMP- LETED	1973 1973 1973 1974	1974 1974 1974 1974 1975 1975 1975	1934 1906 1976 1976		0 0000	1901 1917 1917 1977
MAP COORD	E O O U U U	00000 H0000	0.0 0.0 0.0 0.0 0.0 0.0		e cacao	00000 00044
OWNFR OP WELL USFR	NASSAU CO DPW NASSAU CO DPW NASSAU CO DPW SANDS POINT DFAF-RLIND SCH	NORTH HEMPSTEAD NORTH HEMPSTEA	CITIZENS WTP CO CITIZENS WTR CO NASSAU CO DPW NASSAU CO DPW CITIZENS WTR CO	OTTIZENS WTR CO OTTIZENS WTR CO OTTIZENS WTR CO OTTIZENS WTR CO OTTIZENS WTR CO OTTIZENS WTR CO	EENS WIR EENS WIR EENS WIR DLA	MINFOLA NASSAU CO DPW NASSAU CO DPW NASSAU CO DPW NASSAU CO DPW
NUMBER NUMBER	N N N N N N N N N N N N N N N N N N N	X X X X X X X X X X X X X X X X X X X	N N N N N N 0 0 1 1 1 0 0 1 1 1 0 0 1 1 1 6 0 1 1 1 8 0 1 1 1 8 0 1 1 3 4 0 1 3 4	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	N 9172 N 9208 N 9260

Table 4.--Hydrogeologic Correlations of Selected Wells

and Test Holes in Town of North Hempstead,

Nassau County, New York

#### Table 4

#### EXPLANATION OF COLUMNAR DATA AND ABBREVIATIONS

# Well Number

Well numbers are assigned by the New York State Department of Environmental Conservation. The prefix N designates Nassau County.

# Location of Well

Locations of wells are given by map coordinates, based on a latitude and longitude grid system, to aid the reader in locating the wells shown in plate 1. In this system, 5-minute intervals of latitude are lettered consecutively from south to north, and 5-minute intervals of longitude are numbered consecutively from west to east. The grid coordinates are shown along the margins of plate 1.

The wells are also numbered according to the national well-numbering system of the U.S. Geological Survey. This system locates wells to the nearest second of latitude and longitude and gives a sequence number to the well to denote the chronological order in which a particular well within a 1-second quadrangle was recorded. For example, in well number 4049380733852.01 (N 1849), the first six numbers indicate latitude 40°49'38" north; the remaining numbers before the period indicate longitude 073°38'52". The 01 after the period is the sequence number. It was the first of five wells (N 1849 to N 1853 in the 1-second quadrangle) to be defined by latitude and longitude.

# Hydrogeologic Unit Penetrated and Altitude of Top of Unit

Altitudes of the tops of the hydrogeologic units penetrated by wells are given in feet above or below mean sea level. These data were used to compile the maps and sections in this report. A minus (-) sign preceding the altitude figure indicates that the altitude is below sea level. The number in the "upper glacial aquifer" column is the altitude of the land surface at the well site. Absence of an altitude figure indicates that the test hole did not penetrate the unit.

Table 4.--Hydrogeologic correlations of selected wells and test holes in Town of North Hempstead, Nassau County, New York

					Š.																																						
		BEDROCK									-416		46.46	•							:	-355		4	,		-199		-166	-330													
0F		LLOYD									-280		-26.1	101																													
AND ALTITUDE BELOW (-) MSL		RARITAN			-343		-368				-178		-171	7 . 7																									2				
UNIT PENETRATED IN FEET ABOVE OR		MAGOTHY AQUIFER		0	e		75-	23	65	-57	-54									-173												pand i	poed pord	45			~~	(°)		C.		C	
HYDRAGEDLOGIC UNIT PENETRATED TOP OF UNIT IN FEET ABOVE OR		PORT WASHINGTON AQUIFER																			100	-162		010-			5		-106	-241													
HYDROG TOP O	-	MASHINGTON CONFINING																			-37	-20		ď	2					-100													
. 1		UPPER GLACIAL AOUTFER	66	S) post post	8	IOI	101	121	210	16	<b>C</b> C.	OC.	0	J C	U ()	w 70 m	* 0	•	31	<sub>የ</sub>	Œ para	o	ው	c	. r	. 0	46	46	r.	ຜ	6-1 6-	mand bear 1	S gran	80	80	882	50	10	60	~ ~		4	of the same
	LOCATION OF WELL	LATTTUDE AND	4044110734137.01	4044270734149.01	044160734015.01		4044370734023.02	045150734112.01	4046050734232.01	4046420734405.01	046420734405.02	046420734405.03	047350734240	04/3/0/14/04/04/04/04/04/04/04/04/04/04/04/04/04	04/370-3464CeOC	C4/010/01/01/01/00 04/04/04/04/04/04/00	4047440734740.01		4048330734147.01	404A30073414A。01	0	0	4048560734426.02	4050110734150.01	40.071.451.01.07.04	4050000734150.01	0	051110734302.02	041130734302.01	10-14141005110	4051420734339.01		044460733813.03	4045210733534.01	33534	6	C	4045537733830.01	C	0		046520733727.01	
	LOCA	MAP	r	ır	ւ	C 5 4	ľ	r.	ι.	O 5 4	ır	ľ	ď	^ u	ги	ru	ວ C ບ ແ	١	7 5 4	m	ır.	w.	៤	u	าเร	· ur	7. 7.	w.	មា	ur:	F 5 4	ď	S	œ	· vc	€ 4	ç	ď	ų	C 4	: v	· vo	ď
		WFILL		_	_	N 17	_			2							2 2		Σ α								N 36				2					IUI N				2 2		105 N	

### LATITION HIPPE WAS COORD LONGITUNE ADDITION HAS COORD LONGITUNE ADDITION HIPPER ADDITION H			TION OF WELL		! ! !	-		Alle Alle ann Alle Alle ann		
11		MAP COORT		UPPEP GLACIAL AQUIFER	PORT WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN	LLOYD	BEDROCK
14   14   14   14   14   14   14   14	, ( , ( , (	91	40493R0733852.01	<u>~</u>						
	152	C C	4046280733418.01	₩ 4 ₩ 4			E .			
	506	* <b>4</b>	4048740734541.01	9 0						
	215	C 4	4049510734518.01	000		-120				
F 4 40467734502.01         43         -75           F 4 40467734502.01         171         -51           F 40467734502.01         172         -51           F 40467734012.01         16         -61           F 5 40477073451.01         16         -65           F 5 40477073451.01         16         -67           F 5 40477073452.01         16         -75           F 5 40477073450.01         16         -67           F 5 40477073410.01         40         -215           F 5 4047773410.01         40         -215           F 5 4047773410.01         40         -44           F 5 4047773410.01         16         -44           F 5 4047773410.01         172         4           F 5 4047773410.01         172         4           F 5 404777350.01         172         4           F 5 404777350.01         172         4           F 5 404777350.01         182         4           F 5 404777350.01         182         20           F 6 404777350.01         182         20           F 7 40444777350.01         182         20           F 6 40444777350.01         182         20           F 7 4044447773460.01	216	4	4049550734524.01	30						200
0	217	ধ	4050020734505.01	E 4	225					,
0.5     4046050744013.01     172     92       0.5     4046050744013.01     178     -25       0.5     404770734513.01     184     -25       0.6     404770734513.01     185     -25       0.7     404740734513.01     185     -215       0.5     404870734512.01     40     40       0.6     40487073452.01     40     40       0.7     40487073450.01     40     40       0.7     40487073450.01     10     -44       0.7     40487073450.01     172     44       0.7     40487073450.01     10     40       0.7     40487073450.01     10     40       0.7     40487073450.01     10     40       0.7     40487073450.01     10     40       0.7     40487073450.01     10     40       0.7     4048707340.01     10     40       0.7     4048707350.01     10     40       0.7     4048707350.01     10     40       0.7     4048707350.01     10     40       0.7     4048707350.01     10     40       0.8     4048707350.01     10     40       0.8     4048707350.01     10     40	2,30	4 U	4049450734502.01	CC -	-51					
0.5     4046370734413.01     18       0.5     40467000734353.01     65       0.5     4047000734353.01     65       0.5     404700734353.01     19       0.5     40480073431.01     40       0.5     404807073431.01     40       0.5     4048070734314.01     10       0.5     40480307341144.01     10       0.5     40480307341144.01     10       0.5     40480307341144.01     10       0.5     40540734218.01     172       0.6     405407341144.01     10       0.7     405407341144.01     10       0.7     405407341144.01     10       0.7     40540734113.01     10       0.7     40540734113.01     10       0.7     40540734113.01     10       0.7     40540734113.01     10       0.7     40540733504.01     20       0.7     40540733541.01     20       0.7     40540733541.01     20       0.7     40540733541.01     20       0.7     40540733541.01     20       0.7     40540733541.01     20       0.7     40540733541.01     20       0.7     40540733541.01     20       0.7     40540733541.	26.9	្រហ	4046050734018.01	172			92			
6.5         40.47000744357.01         6.5           6.5         40.47000744357.01         6.5           6.5         40.4740074053.01         155           6.5         40.47400734.053.01         86           6.5         40.48000734.455.01         86           6.6         40.48000734.207.01         86           6.6         40.48700734.207.01         86           6.6         40.4870734.207.01         100           6.7         40.4870734.027.01         100           6.7         40.4870734.02.01         172           6.8         40.4870734.02.01         172           6.8         40.4870734.02.01         172           6.8         40.4870734.02.01         180           6.8         40.46407334.02.01         180           6.8         40.464073350.01         180           6.8         40.46504073352.01         182           6.8         40.46504073352.01         182           6.8         40.46504073352.01         182           6.8         40.46504073352.01         182           6.8         40.46504073352.01         182           6.8         40.46504073352.01         182           6.8	270	ا ا	4046370734413.01	<b>6</b> C						
D 5         404470734353.01         548           D 5         404470734353.01         98           D 5         404470734409.01         84         19         -215           D 5         404670734409.01         84         19         -215           D 5         404670734310.01         88         19         -215           D 5         40467347340.01         88         19         -215           D 5         404673734762.01         16         -44         -44           D 5         4046737734762.01         172         4         -44           F 5         4056480734102.01         176         4         -44         -44           F 5         4056480734102.01         178         7         -44         -44           F 6         4056480734102.01         178         16         -44         -44           F 7	272	c v	4047000734357.01	, v						
N	273	C R	4047070734353.01	e v			-25			
N	794	C.	4047400734053.01	155						
n 5         4048700734409.01         A4         -215           n 5         4048700734372.01         45         19         -215           n 5         4049110774312.01         40         41         -215           n 5         404870774217.01         48         -44         -44           n 5         4049370734206.01         16         -44         -44           n 5         404937073412.01         16         -44         -44           n 5         404947073415.01         172         -44         -44           n 5         404947073410.01         172         -44         -44           n 6         404947073410.01         172         -44         -44           n 6         40444707350.01         100         -44         -44           n 6         40464707350.01         18         74         -44           n 6         40464707350.01         18         74         -46           n 6         404667073364.01         300         200         -200           n 6         404667073364.01         300         200         -200           n 6         404667073364.01         300         200         200           n 6	ر م	r C	4048040734213.01	& &						
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F 5 4050480734013401 D 6 4046470733506*01 D 6 4047473520*01 D 6 4047773520*01 D 6 4047733837*01 D 7 4046590733837*01 E 6 4050190733955*01 D 7 4046460733955*01 D 8 4046460733955*01 D 9 4047130733956*01 D 7 4047130733956*01 D 7 4047130733956*01 D 7 7373956*01	715	u i	4051310734130.01	e e ~						
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Table 4.--Hydrogeologic correlations of selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

0 0 0 0 0 0 0 0	BEDROCK		& E -						
0			, i						
	LLOYD		-335						
	RARITAN		-274						
	MAGOTHY AQUIFER	148							
	MASHINGTON AQUIFER		-187 -230 -102						
	WASHINGTON CONFINING UNIT		1.55						
	UPPER GLACIAL AQUTEFR	201 201 105 10		. O a a a	ας ας ας ας ας	0,000	01001	00008	α
	0 0 0								
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N 1033	ר כ ת	4047110734157.04 4047110734157.05							
N 1101	· LC·	4046500734214.01	r e						
	C.	4046500734214.02	r. O						
	ر د	4046090734216.01	186 186						
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N 1105A	C)		80						
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N 1117A	li.		r:						
	L L	4050400734048.01	541						
2 2	יר נת	4000470734040.00 4040370734047.01	- 4°						
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Table 4.--Hydrogeologic correlations of selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

### UPPER ###################################	LUCATION OF WELL						
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	D S 4047430734035	000					
1722	n 5 4047470734035.	000					
	0 E 6086450734033	170		ur ox			
	0 5 4046450734033°	179		75			
	D 5 4045350734021.	142					
1734   5	n 5 4045350734021.	145		S.			
1734	n 5 4045390734004.	124		65			
1234   5 4045390734004.03   1124   5 404440734004.03   1124   5 404440734004.03   1124   5 404410734006.03   1125   5 404410734006.03   1135   5 404410734006.02   1134   5 4047540733457.02   1135   5 4047070733457.02   1135   5 4047070733450.02   1135   5 4046120733433.03   1137   5 4045120733433.03   1137   5 4045120733433.03   1137   5 4045120733435.01   1155   5 404510733575.01   1157   5 40451207335574.01   1157   5 40451207335574.01   1157   5 40451207335574.01   1157   5 40441073357574.01   1157   1157   1157   1157   11	n 5 4045390734004.	125		99			
1124	n 5 4045390734004.	125		99			
1174	C 5 4044440734004.	110					
125	C 5 404440734004.	011					
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	C 5 4044100734006.	ዓ					
134A	n 6 4047520733903.	30					
	0 6 4047440733857°	n i					
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	n 6 4047070733850.	145					
134	n 6 4046120733833.	126					
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134	n 6 4046120733433.	125					
	3086670863707 7 7						
	0 K 6065380733805.	107					
	n 6 40453A0733A25.	107					
	n 6 4045010733818.	104					
	n 6 4045010733818.	104					
	0 6 4048520733736.	178					
	D 6 4049000733712*	140		73			
1157   0 6 40461907735444.01	n 6 4047030733702.	1 4.0					
1159 N 6 404419733674.01 1159 C 6 4044419733674.01 1159 C 6 4044419733674.02	n 6 40461907735444.	170					
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1150 C & 4044410733674.02	C 6 4044419733624.	a Ça					
	C 6 4044410733624.	Çō					
1177 0 6 4046490733513.01	D 6 4046490733513.	6C .		156			
1178 n	n 7 4045390733458.	120					

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		N OF WELL	•					************	en e
WFLL	MAP	MAP LATITUDE AND COORD LONGITUDE	UPPFR GLACIAL AQUIFER	PORT WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN	LLOYD AOUIFER	BEDROCK
									***************************************
	C .	4045370733702.01	112						
	c (	4045370733702.02	211						
2 2 2 2	ר עם ביב	4049480/34128.01	10.5	46=	-196	ć		-235	
_	<u>_</u>	4046550734445.01	15			-70	-132	-243	* 3255
, ,		4046550734445.02	ř						
		4045490734021.01	165			24			
-		4047220734352.01	96			15			
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N 1329		4045250733533.01	110						
Parent.		4045300734230.01	162			43			
barn.		4045160733930.01	107						
N 1430	ري د ر	4045160733930.02	107						
N 1430A	<u>_</u>	4045190733932.01	105						
	C	4045190733932.02	105						
-	<b>C</b>	4045190733932.03	105						
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green 1 g	ır ı	4050190734153.01	good ;	-46					
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17. 00.	ur	4049480734126.01	4 CC.	051	-212			-256	
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. 1 po	40	404446733929.01	) (= C						
N 1614	C 6	4044460733929.02	101						
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boori C	\$	4044460733929.04	101						
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( ) Breeze	¢	4045540733515.02	8						
N 1618	5	4046310734215.01	o a			-55	-187	-327	-476
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N 1585	in C	4047230734349.02	90				(31-		
	ហ	4047230734349.03	ዓይ				133		
	r.	4047230734349.04	95						

Table 4.--Hydrogeologic correlations of selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

		LOCATION OF WELL							6
1715   0	FL. WAFR	LATITIDE AND	UPPER GLACIAL AGUIFER	PORT WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN	LLOYD	REDROCK
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158   40.00   10.74   111.00   10.1		п	101			8	-165	-264	105-
5   6044910744111.01   101   101   54   55   55   55   55   55   55   5		R,	101						
6. 4.044470744034.02         712           7. 4.04447074034.02         712           8. 6.04447074034.02         712           8. 6.04447074034.02         712           8. 6.04447074034.02         712           8. 6.0444707404.02         132           9. 6.04451077416.01         132           9. 6.04451077416.02         132           10. 5. 6.04451077416.02         132           10. 5. 6.04451077416.02         137           10. 5. 6.04451077416.02         137           10. 6. 6.04451077416.02         137           10. 6. 6.04451077416.02         130           10. 6. 6.04451077416.02         130           10. 6. 6.04451077416.02         130           10. 6. 6.04451077416.02         130           10. 6. 6.04451077416.02         130           10. 6. 6.04451077416.02         130           10. 6. 6.04451077416.02         130           10. 6. 6.044510774416.02         130           10. 6. 6.044510774416.02         130           10. 6. 6.044510774416.02         130           10. 6. 6.044510774461.02         130           10. 6. 6.044510774461.02         130           10. 6. 6.044510774461.02         130           10. 6. 6.044510774461.02		ιr	101				-158	1254	-408
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0.6       40.449110733912.03       20         0.6       40.449110733912.01       20         0.6       40.449100733912.01       20         0.6       40.449100733912.02       20         0.6       40.444207344405.04       15         0.7       40.444405.05       15         0.8       40.444405.05       15         0.9       40.444405.05       15         0.7       40.444405.05       15         0.8       40.444405.05       15         0.9       40.444405.05       15         0.0       40.444405.05       15         0.0       40.444405.05       15	1 7 0	4	0						
0 6 4048110733911.01       20         0 6 4048110733912.01       20         0 6 4048110733912.01       20         0 6 4048110733912.02       20         0 7 4044420734405.02       15         0 5 4044420734405.05       15         0 7 4044420734405.05       15         0 7 4044420734405.06       15         0 7 4044440734405.01       15         0 7 40444467344405.01       15         0 7 40444467344405.01       15	- C	: 40	20						
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	٦٦	LOCATION OF WELL	-						
WELL	COO	LATŢ LO	UPPFR GLACIAL AQUIFFR	MASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY	RARITAN	LLOYD AQUIFER	BEDROCK
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		4050090734150.02	m						
	r	4050090734150.03	(M)	15-					
N 2002	9	4049380733850.01	OC:	,		-15	-229	-342	
	r	4047310734007.01	254			59	-237	ı	
	ហ	4047310734007.02	254						
	ĸ	4049070734109.01	0			(°)	19	100	
	w	4049070734109.02	102			:	i )		
	r	4047370734117.01	141			74			
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Table 4.--Hydrogeologic correlations of selected wells and test holes in

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5   4046480774215.03   60   60   60   60   60   60   60	c		40						
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+ 4044260744504.01	c	4045190733427	2			65	1445		
0.00   0.00	c	4048240734504	-	-2					-263
1	c		-						
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-125	c					65	1445		
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0	U		band Smot Arms					•	
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C 6 404440733651.01       93       68         C 6 404440733651.01       16       11         D 6 40444073364.02       135       -20         D 6 404440733602.01       135       -20         D 7 4045140733902.02       135       69         C 6 40444073344.03       115       -2         D 7 404514073344.02       107       -2         C 6 404444047.01       107       -2         C 7 4045110733916.01       40       -2         D 5 4045110733916.01       40       -2         D 6 4045110733916.01       40       -2         D 7 4045110733916.01       14       -2         D 7 4045110733436.02       114       -2         D 7 4045160733436.02       114       -2         D 7 404516073345.02       14       -2	C	4047270733804	A. A						
C 6 404410733641.01     93       D 6 404566733902.01     16       D 6 404566733902.02     135       D 7 404447733902.02     135       D 8 404447733902.02     135       D 9 404447733900.02     115       D 7 404434733940.01     117       D 8 404434733940.02     117       D 9 40443733940.02     117       D 9 40443733910.01     41       D 1 4044110733910.01     42       D 1 4044110733910.01     42       D 2 404411073394.02     114       D 3 40441407334.02     114       D 3 40441407334.02     114       D 4 404434073345.02     114       D 5 4044340733455.02     92	c	4047430734032	4						
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C 6     40464340733651.01     94       C 6     4046340733940.03     107       C 6     4046340733940.02     107       C 6     4046340733940.02     107       C 6     4046340733910.01     41       C 6     4046110733910.01     42       C 7     4046110733910.01     45       C 8     4046110733434.02     114       C 9     4046140733434.02     114       C 10     4046140733434.02     114       C 10     4046140733455.02     92       C 10     4046340733455.02     92	: c	4045460733902.0	35						
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6     40.48120733914.01     8       7     40.48110733914.01     51       8     40.48110733914.01     42       9     40.48110734274.01     114       10     40.48110734274.01     114       11     40.481107334734.02     114       11     40.481107334734.01     144       12     40.48110733475.01     92       13     40.48140733455.02     92	5		) e			; :			
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0.5     40.487110733916.01     45.       0.5     40.48710734216.01     14.7       0.5     40.4871073434.02     11.4       0.7     40.4871073434.02     11.4       0.5     40.48380733454.02     14.1       0.6     40.44380733455.02     92.7	0 7 0	LAPFETAC 101A11	Œ						
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			•	HYDRO TOP	GEOLOGIC	UNIT PENETRATED IN FFET ABOVE OR	A H	JOE OF WSL	
	١,	F WELL				***************************************			*************
WFLL	COO	LATTTUDE AND LONGITUDE	UPPER GLACIAL AQUIFER	MASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITĀN CLAY	LLOYD AQUIFER	BEDROCK
N 0637 N 0635 N 07447 N 07447	00000 00000	4044390733559.02 4049430734152.01 4044460733550.01 4044460733550.02 4044460733551.01	0 4 6 0 6 0 6 0 0 0 0 0 0 0 0 0 0 0 0 0	09-		29			
N 2748 N 2748 N 2748 N 3153	00000 991199	4044450733651.02 4044450733651.03 4047510734403.01 4047510734403.02 4044370733646.01	4450F	- 33	06-	49	1 1 9 4 9	-250	-342
N N 3134 N N 3185 N N 3185 N N 3185 N N 3485 N N 3485 N N 3485 N N 3483 N N N 3483 N N N N N N N N N N N N N N N N N N N	0000C	4044430733648.01 4044160733847.01 4044160733847.02 4048460733925.01 4048150734345.01	1000 1006 1006 1006	09	क ** ** **	1 1 N N N	00 V VD (F) F) #	1 0 0	000
N 3443 N 3443 N 3458 N 3477 N 3484	CCCCC N W & O &	4048150734345.02 4048150734345.03 4048467733937.01 4049260733838.01 4045290733514.01	end end (B. 6ml 6ml 요요R. 6ml 6ml 6ml 소수요R. 60			] \$700 } {***	)		
X X X Z X	RCCCC	4051230734117.01 4048230734148.01 4048140734112.02 4048280733514.01	2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			성 (ID) 남가 (Y) 무여 (III) 불 불	0 0 0 0 ml ml 1 1	୯ ୬ ୯ ୩ ୯ ୩ ୮ १	
X X X X X X X X X X X X X X X X X X X	00000 00000	4040240734148.02 404050734337.01 404590734021.02 404590734023.03	<b>ରକ୍ଟିପ</b> କଟି ଓଡ଼ି ବିବିଦ୍ ନୌଧୀ ଅନ୍ତର			국가 '구울' 아~아 (구울' 를 를	원 원 원 생 명 명 명 원 물 합		
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Table 4.--Hydrogeologic correlations of selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

	•																																					
	SED-OCA									-611																EC 49												
	AQUIFER								-260	-431																66												
	RARITAN									-254											194					u u	4		-303									
	AQUIFER		Ç	CJI-	J &		ų u	0 -		port A							5 6	14	E	*	60		**	e P	'	Æ.			36	(a)	1	E	N 4	0.7		C	<b>P</b> .	
	WASHINGTON AGUIFER								-103																	8	-		٠									
	WASHINGTON CONFINING UNIT								Lí I			•		-19										6			D 70								60-			
•	UPPER GLACIAL AOHIFFR	수 수 수 가 로마 수 수 수 가 수 수 수 수 수 수 수 수 수 수 수 수 수 수 수	[o	140	~ C	> & ~ ~		ec ·	€ €	2 m	134	-	3	n 8	ر د و د و	ř	~ (	2 4 6	200	132	261	102	149	132	r	215	r i	. 67	) Po		ĵ* √ Χ 60 ≈ 1 ρ	C de	306	er N	6	e a	4	
LOCATION OF WFLL	LATITUDE AND	· 秦 曹 章 春 章 章 章 章 章 章 章 章 章 章 章 章 章 章 章 章 章	4047070734424.01	4048420734044.01	4048230733805.03	4044350733777001		4047260734355.01		4049420734176.00 4045440734171.01	4045440734151.02	4050430734057.03	•	4048210734528.01	4045250733732.01	404846733431.01	4047330734146.01	404174073418801	404574014353Ce01	4046330733759.01	4040550734034.01		484719873337.	4045420734150.	4040200734143-01		4047570774403	404753073440300V	4(14/12)/44/3(0	97377777777777			:		4050540734109.01		40451407341210	
	1 << C	\$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	c	c		3758 0 6		C	c	ARRA C RACC	c	L	4411		4087 D A	c	4128 n S	c :		4017	c	- 4	4//4 2//04 2 C	c				4766 D	נו לטנ	27.4	U CEE7	4 .		4388 0	280	N 6380 F S	0 000	-

				HYDRO TOP	HYDROGFOLOGIC UNIT PENETRATED TOP OF UNIT IN FFET ABOVE OR	UNIT PENETRATED IN FFET ABOVE OR	D AND ALTITUDE OF R BELOW (-) MSL	DE OF WSL	
		OF WFLL	•				8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		
WFLL	MAP COORD	LATITUDE AND RD LONGITUDE	UPPER GLACIAL AQUIFER	PORT WASHINGTON CONFINING UNIT	PORT WASHINGTON AOUIFER	MAGOTHY AQUIFER	RARITAN	LLOYD AQUIFER	BEDROCK
		4047410734028.01	219						
		4047410734028.02	516						
4		4071240734047.01	r.						
N 47.94	י נית	4047420734031.01	216						
		•	4						
N 4672		40492R0734420.01	20						
		4047220733948.01	257			19	-244		
		4050140734234.01	91,	-36	-166				
N 4697	הית	4046380734413.03	150 9. L						
		)	3						
N 4754	C	4048070734506.01	4.7.						
		4051230734117.02	100						
		4044370733743.01	109			,			
Z 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			109	i		30			!
		4020100744142.01	30	*55	602-				-353
		4050100734142.02	30						
		4050100734147.01	18	-75					
		4044400733646.01	06						
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		10.04056/0064404	r C						
		4045520733420.01	119			105			
		4047000734350.01	α			-39			
		4046470734235.01	189			ار 10	-195		
N 2000 N	ر د د	4046470734235.02	0 0 0 0			6.9	00 5		
		9	J.			7	997		
	ហ	4047320734304.01	135			101			
N 5208	9	4046300733859.01	128	,					
00%F	ir i	4049410734030,01	200	707					
N 5210	s,	4049410734031.01	002	>		ţ			
	c	4048290733951.02	1 78 8 2			£ €			
N 5251		4048410734129.01	102						
		4047110734455.01	10						
N 5296	c R	4047110734455.02	10						
			50	-30	8				-263
N 5528		4047280734005.01	257			29	-238	p <sup>e</sup>	
		CO 300%E108C1%0%	7.30						
2000		404040734144 01	- 14	4				46.	45
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		4046180734141.01	050			64			
N 5535		4046180734141.02	250						

Table 4.--Hydrogeologic correlations of selected wells and test holes in Town of North Hempstead, Massau County, New York (Continued)

UPPER GLACIAL AQUIFER
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				HYDRO TOP	HYDROGEOLOGIC UNIT PENETRATED TOP OF UNIT IN FEET ABOVE OR	FENETRATED	AND ALTITUDE OF BELOW (-) MSL	DE OF	
	LOCA	TION OF WELL	•			· · · · · · · · · · · · · · · · · · ·			
MIMBER		LAT	UPPER GLACIAL AQUIFER	MASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN	LLOYD AQUIFER	BEDROCK
							- 40 (g) and (g) are (g) are (g) are (g) are		
	ro r	4049260734107.01	21.5			i			
	ւռ	4047430734072.01	0 80			-17			
N 6073 N 6083	ר כ ה ה	4045110734128.01 4047500734446.01	120			1 4			
	ß	4050100734143.03	20						
N 6088	כ נ ת	-d+ (	118						
	ւ ռ	4049400734049*01		- 188	1237				
	ľ	4049400734049.02	157	i ·					
		4049400734049.03	157						
ν 4]]γ	ור תי	4050250734125.02				,			
			τ, α Λ.			<b>4</b> I			
		4044050734024.01	° 60°						
	9	4049010733923.03	<b>₹</b>	-95	-158				
	9	4049010733923.04	54						
2000 N	ر د د	4045490733305.01	132			37			
	ហ	4051250734207.01	102	101-	-195	t			318
	R	4051250734207.02	102						
	ır ı	4049190734159.01	ল ও খা						
2000 E	9	4048280733926.01	2 6						
	'n	4050510734145.01	en en						
		34350.	n 4						
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N 63.6	דו כ סיק	40-0140733450*01	~ ~						
N 6333		0733754.	200						
	u	4044540734104.01	0			40			
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	r)	4051250734207.04	26	,					
N 6346	c n	4049360733949.01	น แ	00    	-236				
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	ď	4048180734405.01	80						
	9	4046460733657.01	145			42			

Table 4.--Hydrogeologic correlations of selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

	۲٥		·				(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	(0) (0) (0) (0) (0) (0) (0) (0) (0) (0)	
WELL	MAP	LATITUDE AND I ONGITUDE	UPPER GLACIAL AQUIFER	MASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN	LLOYD	REDROCK
N X X X X X X X X X X X X X X X X X X X	r r c c c r 4 o r e	4051230734124.01 4050060734504.01 4046570733819.01 4048380734151.01 4046550733818.01	11.2 4.2 14.8 15.2	-12	- 70	30			
N 54750 N 54750 N 54750 N 54750 N 54120 N 5412	C O T C C C O T C C	4048370734151.01 4044150733936.01 405022734046.01 4046040733601.01 404537073335.01	31 91 189 173 130		· · · · · · · · · · · · · · · · · · ·	108			
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	F F F C C S R R R R S	4050160733953.01 4051190734121.01 4051310734245.01 4044330734025.01 4046360733641.01	109 71 71 138	6° cc	-228	pre (전) pre (전)			•
N	O C C C F R R R R R R R	4044330736027.01 4047500734446.02 4045470734011.01 4045470734011.02 4051240734051.01	2 L L L L L L L L L L L L L L L L L L L	e S	16-	S	0 PM 60	-190	
	cccco ccc	4047060734400.01 4048070734342.01 4045780734058.01 4044170734053.01 404837073372.02	7 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			13 68 13 68	575-		
	си ссеис	40464707344007.07 4044070734347.07 4044410733550.01 4044410733550.01 404740734537.02	7 & & & & & & & & & & & & & & & & & & &	1 1	668-	- 58 - 03			
	c c c c c	4 2 2 2 2	2 2 2 2 4 2 2 4 2 4 2 4 2 4 2 4 2 4 2 4			LC port Por	<b>6</b>		

					110	PENETRATED	AND ALTITUDE OF BELOW (-) WSL	DE OF MSL	
		TION OF WELL	•	1 1 1 5	* 6		* * * * * * * * * * * * * * * * * * * *		
WFLL	MAP COORD	LATITUDE AND LONGITUDE	UPPER GLACIAL AQUIFEP	WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN	LLOYD AQUIFER	ВЕВРОСК
	C 0	4045520733416.02	120						
N 7386		4046150733646.01	183						
N 7399	د ر ری ر	4046520734226.01	126			-64			
4		4048180734407.01	N K						
		4045140734121.07	120			16	-328		
		4046280733717.01	138			i			
N 74/0 V 171/0	د د د	4045270733404°01 4045340734]03°01	100			27			
		4046520733727.03	154			4			
7524		4044250733805.01	106			33			
		4046560733946.01	162			79	-248	-418	
		4046560733946.02	162			,	i		
N 7552	د د د	4046490733944.01 4046490733944.02	143 143			101	-254		
	6	10 2705540577707	ŗ			111	-261		
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7 7 7 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 5 4 5	9	4047050733949.01	190			66	-253		
	c	4047050733949.02	190			į			
	C	4045070734202.01	150			38			
	w	4050410734013.01	39			į			
7591	о О	4046400733814.01	123	7-		1		-147	
	c	4046110734010.03	162			28	-284		
~		04611073401	162						
N 7666		4046110734010.01	162			28	1284		
N 7666	2	04611073401	162						
-	C	4045370733718.01	100						
	c (	04733073360	587						
	2	4045[40/33/0/.01	r F						
	5	4046120734006.01	167			78			
	2	4045170733339.01	27			T)			
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N 7750	ר כ נט ת	4047340734242.03	τ. r					,	
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	C	4047360734239.02	15						
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Table 4.--Hydrogeologic correlations of selected wells and test holes in Town of North Hempstead, Nassau County, New York (Continued)

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3 5	MAP	LATITUDE AND LONGITUDE	UPPER GLACIAL AQUIFER	MASHINGTON CONFINING	WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN	LLOYD	ВЕЛЯОСК
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143	WFI_I.	MAP	LATITUDE AND LONGITUDE	UPPFR GLACIAL AQUIFER	WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN	LLOYD	BEDROCK
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900		ս տ	4051280734201.01	82	-78	-218				-305
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